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(54) APPARATUS AND METHOD FOR FACILITATING THE SELECTION OF PRODUCTS BY BUYERS AND THE PURCHASE OF THE SELECTED PRODUCTS FROM A SUPPLIER

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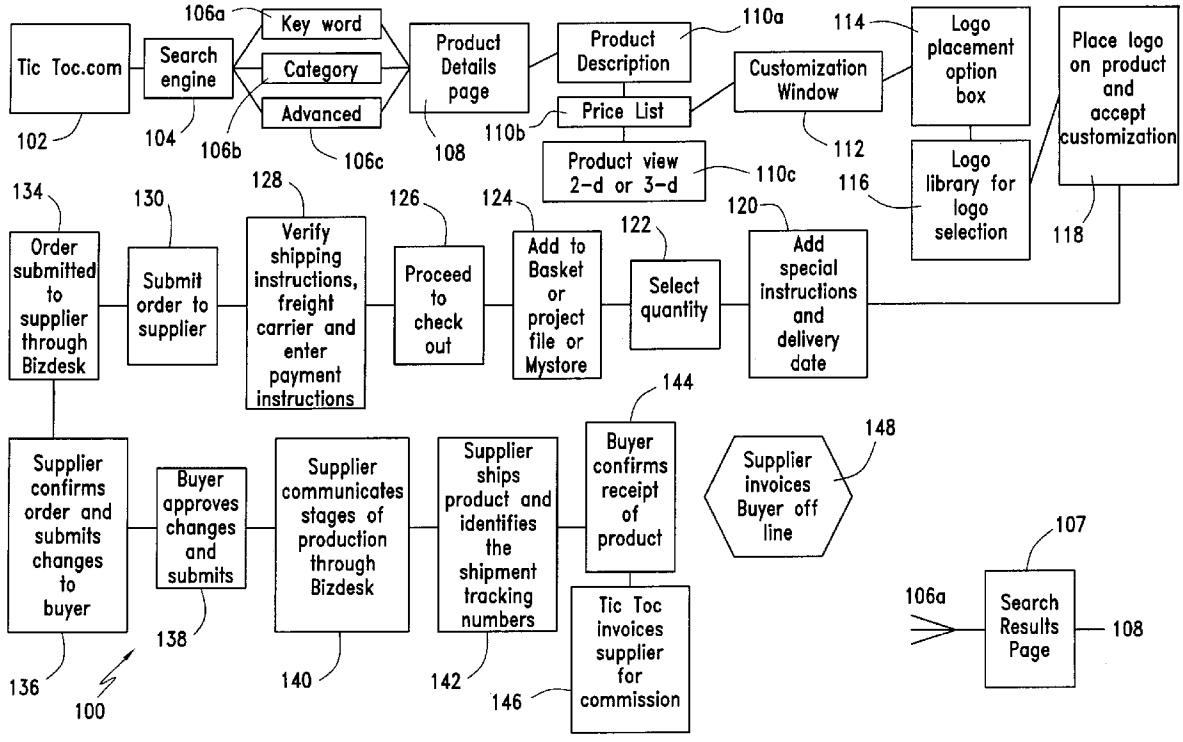
Publication Classification

(51) **Int. Cl.**[7] **G06F 17/60**

(52) **U.S. Cl.** **705/26**

(57) **ABSTRACT**

A method is disclosed for managing the sale of a plurality of items from a plurality of corresponding suppliers to at least one buyer, wherein the one buyer determines a description of the item to be purchased. The method enables each of the plurality of suppliers to store at least one catalogue of its items in a database and responding to a search request of the one buyer to identify any item in the catalogues stored in the database with a description that matches the item description of the buyer.



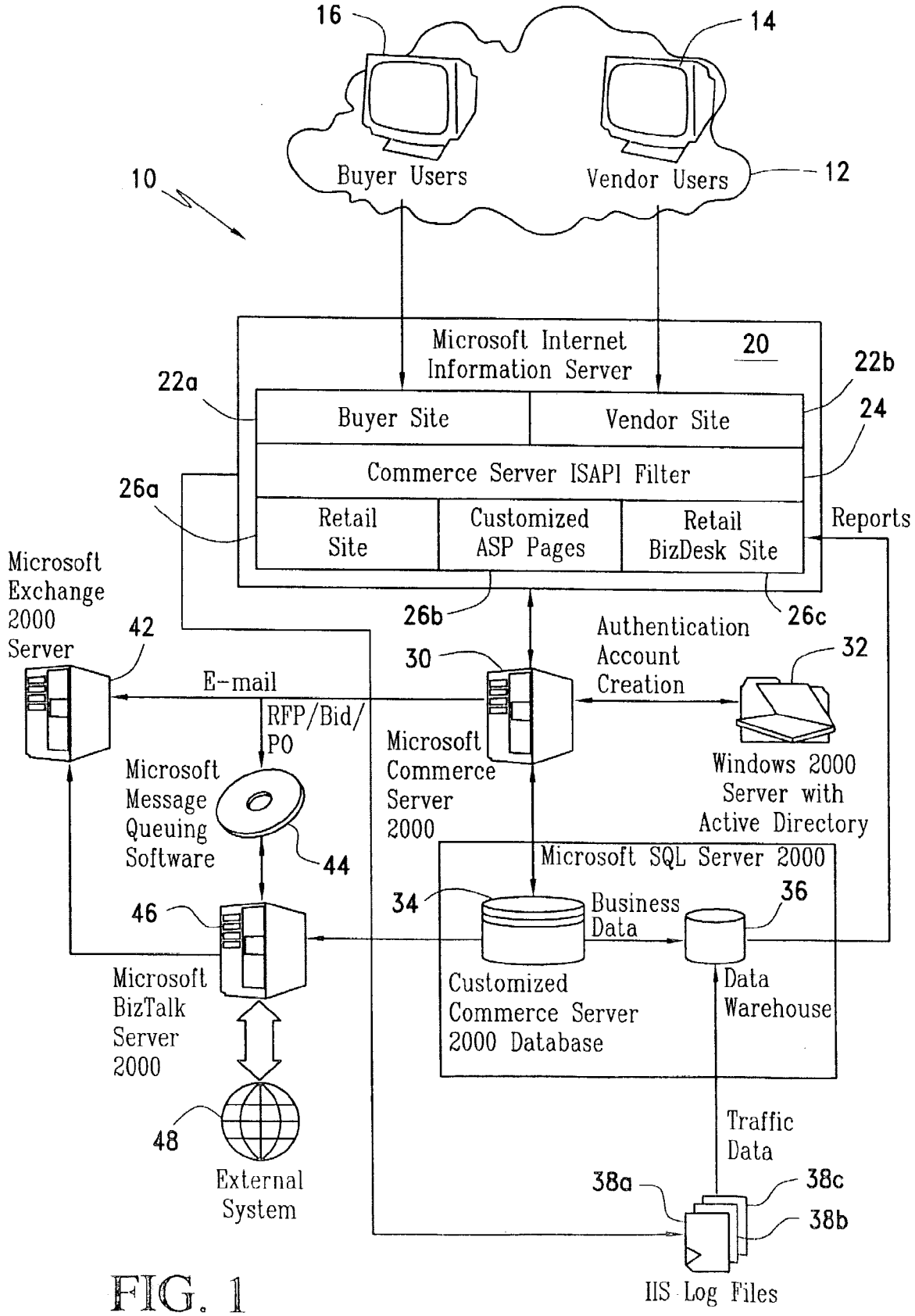

16
14
Buyer Users
Vendor Users
12
10
Microsoft Internet Information Server
20
22a
22b
24
Buyer Site
Vendor Site
Commerce Server ISAPI Filter
26a
Retail Site
Customized ASP Pages
Retail BizDesk Site
Reports
Microsoft Exchange 2000 Server
42
26b
26c
Authentication Account Creation
30
32
E-mail
RFP/Bid/ PO
Microsoft Commerce Server 2000
Windows 2000 Server with Active Directory
Microsoft Message Queuing Software
44
Microsoft SQL Server 2000
34
Business Data
36
46
Customized Commerce Server 2000 Database
Data Warehouse
Microsoft BizTalk Server 2000
Traffic Data
48
External System
38a
38c
38b
IIS Log Files

FIG. 1

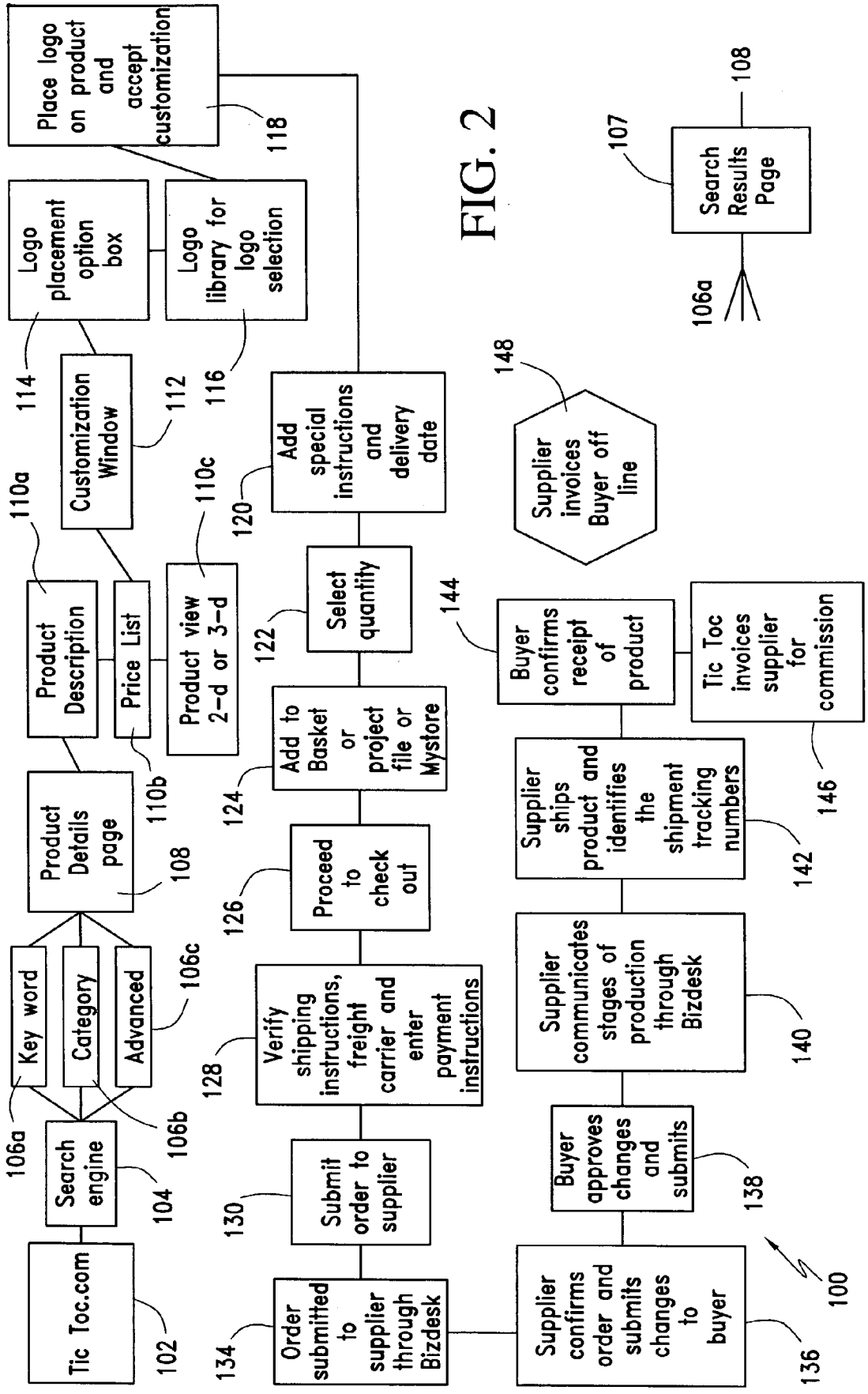

Tic Toc.com
102
Search engine
104
Key word
Category
Advanced
106a
106b
106c
Product Details page
108
Product Description
Price List
110a
110b
Customization Window
112
Logo placement option box
114
Logo library for logo selection
116
Place logo on product and accept customization
118
Product view 2-d or 3-d
110c
Add special instructions and delivery date
120
Select quantity
122
Add to Basket or project file or Mystore
124
Proceed to check out
126
Verify shipping instructions, freight carrier and enter payment instructions
128
Submit order to supplier
130
Order submitted to supplier through Bizdesk
134
Supplier confirms order and submits changes to buyer
136
100
Buyer approves changes and submits
138
Supplier communicates stages of production through Bizdesk
140
Supplier ships product and identifies the shipment tracking numbers
142
Buyer confirms receipt of product
144
Tic Toc invoices supplier for commission
146
Supplier invoices Buyer off line
148
106a
Search Results Page
107
108

FIG. 2

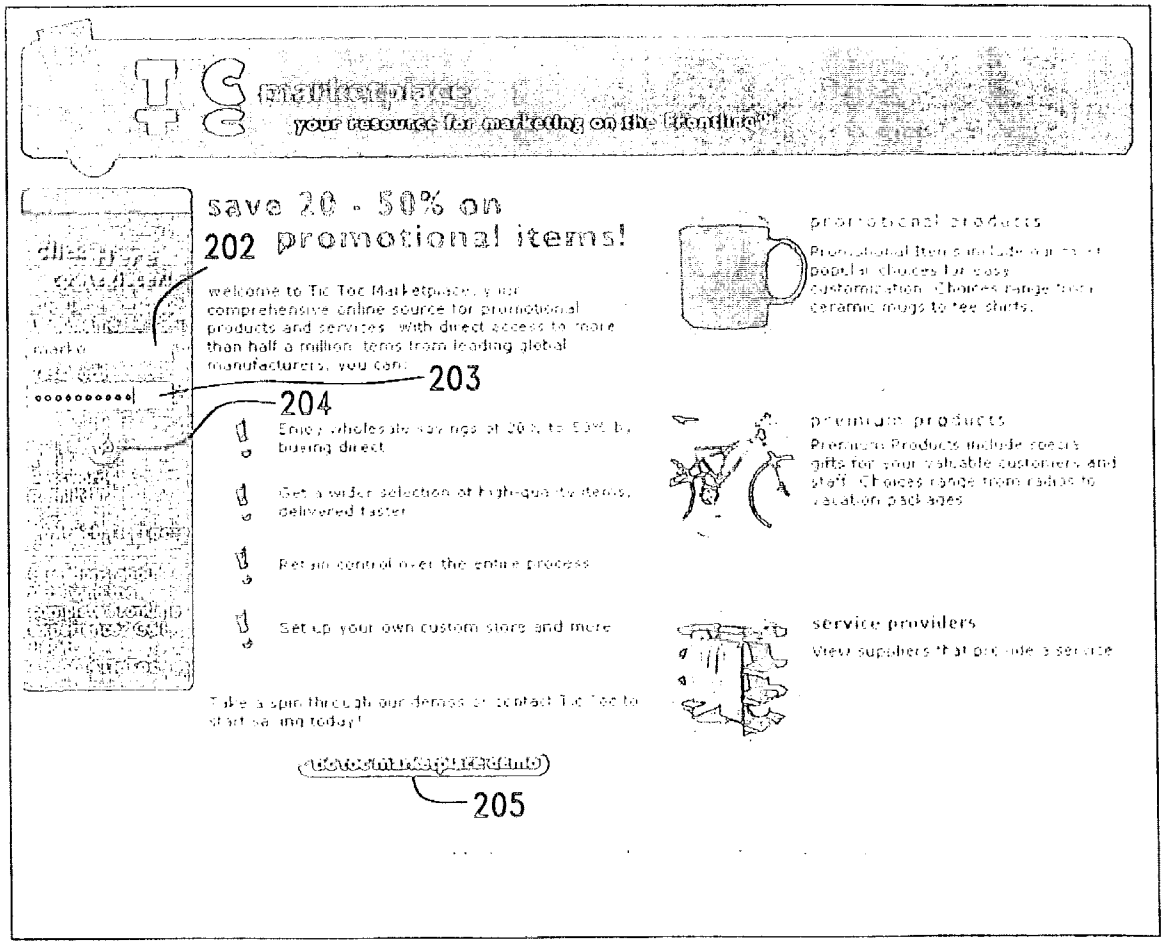

marketplace
your resource for marketing on the Internet
save 20 - 50% on
202 promotional items!
welcome to Tic Toc Marketplace, your comprehensive online source for promotional products and services. With direct access to more than half a million items from leading global manufacturers, you can:
203
204
Enjoy wholesale savings of 20% to 50% by buying direct
Get a wider selection of high-quality items, delivered faster
Retain control over the entire process
Set up your own custom store and more
Take a spin through our demos or contact Tic Toc to start saving today!
205
promotional products
premium products
service providers

FIG. 3A

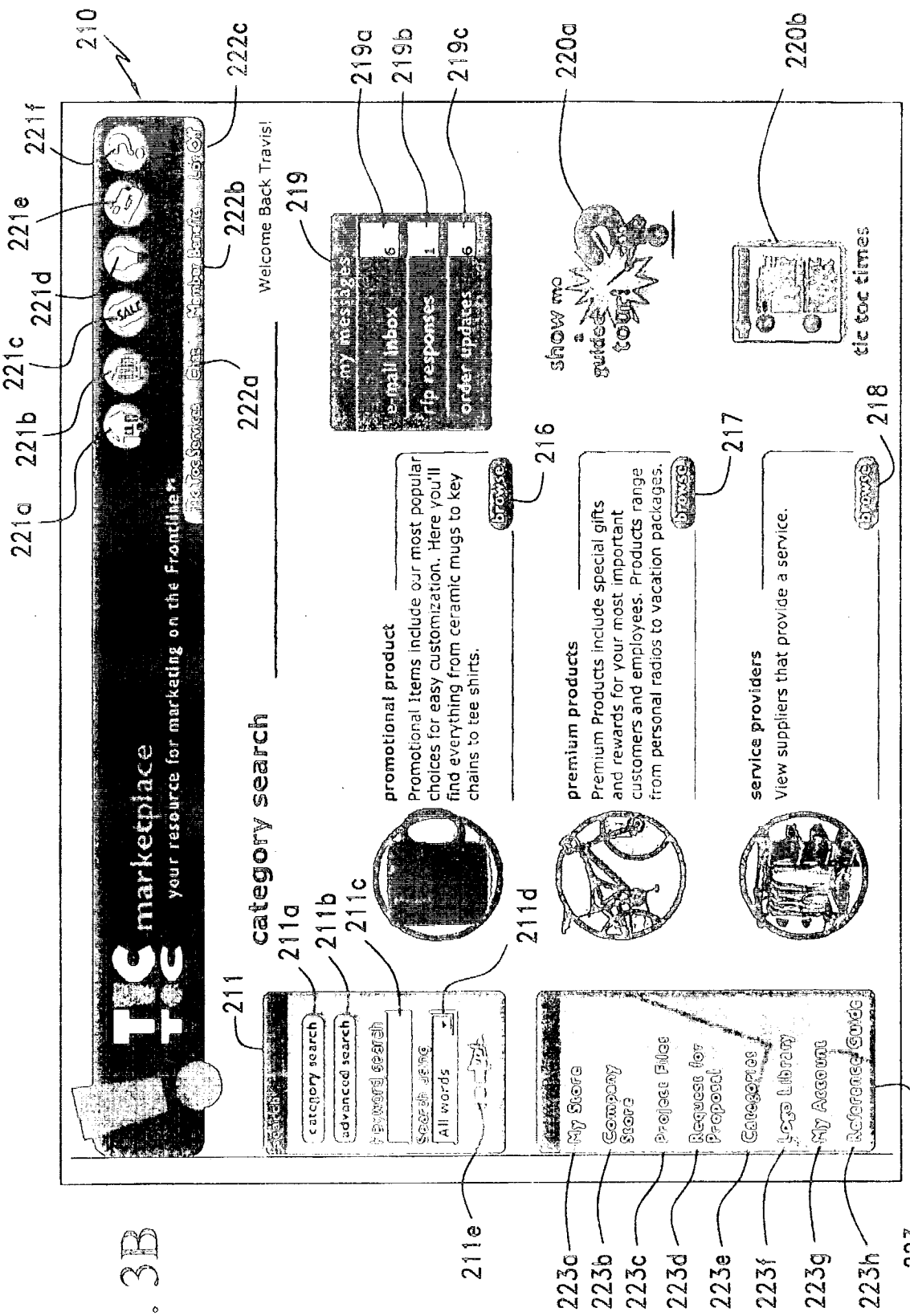

TIC marketplace
your resource for marketing on the Frontier
Welcome Back Travis!
category search
promotional product
Promotional items include our most popular choices for easy customization. Here you'll find everything from ceramic mugs to key chains to tee shirts.
premium products
Premium Products include special gifts and rewards for your most important customers and employees. Products range from personal radios to vacation packages.
service providers
View suppliers that provide a service.
browse
my messages
e-mail inbox
rfp responses
order updates
show me a guided tour!
tic toc times
category search
advanced search
keyword search
search using
All words
My Store
Company Store
Project Files
Request for Proposal
Categories
Logo Library
My Account
Reference Guide
210
211
211a
211b
211c
211d
211e
216
217
218
219
219a
219b
219c
220a
220b
221a
221b
221c
221d
221e
221f
222a
222b
222c
223
223a
223b
223c
223d
223e
223f
223g
223h

FIG. 3B

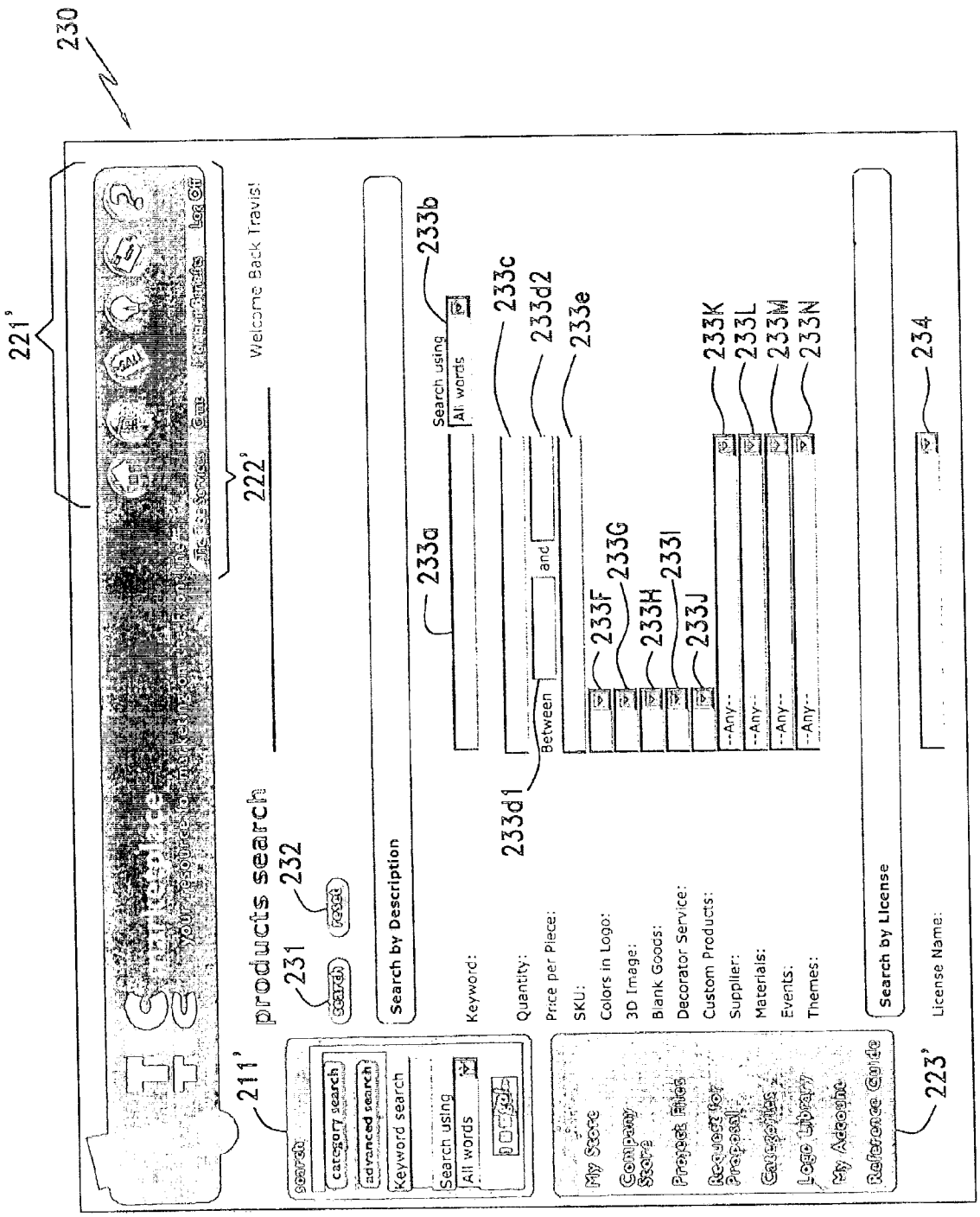

230
221'
211'
222'
231
232
233a
233b
233c
233d1
233d2
233e
233F
233G
233H
233I
233J
233K
233L
233M
233N
234
223'
products search
search
reset
Welcome Back Travis!
Search by Description
Search using
All words
Keyword:
Quantity:
Between
and
Price per Piece:
SKU:
Colors in Logo:
3D Image:
Blank Goods:
Decorator Service:
Custom Products:
Supplier:
Materials:
Events:
Themes:
--Any--
Search by License
License Name:
category search
advanced search
Keyword search
Search using
All words
search
My Store
Company Store
Project Files
Request for Proposal
Categories
Logo Library
My Account
Reference Guide

FIG. 3C

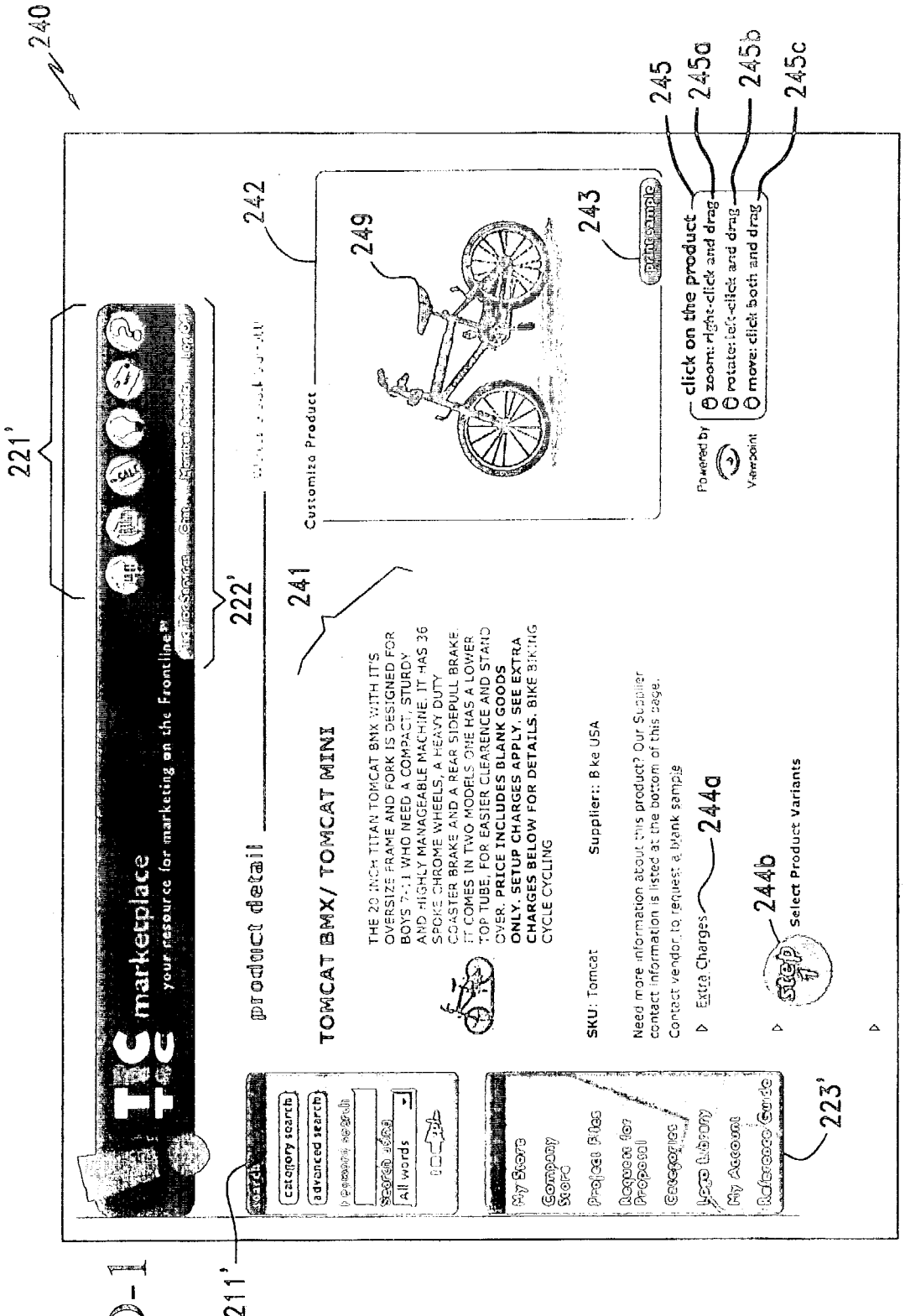

240
221'
222'
241
242
243
245
245a
245b
245c
211'
223'
244a
244b
TC marketplace
your resource for marketing on the Frontline
product detail
TOMCAT BMX/ TOMCAT MINI
THE 20 INCH TITAN TOMCAT BMX WITH IT'S OVERSIZE FRAME AND FORK IS DESIGNED FOR BOYS 7-11 WHO NEED A COMPACT, STURDY AND HIGHLY MANAGEABLE MACHINE. IT HAS 36 SPOKE CHROME WHEELS, A HEAVY DUTY COASTER BRAKE AND A REAR SIDEPULL BRAKE. IT COMES IN TWO MODELS ONE HAS A LOWER TOP TUBE, FOR EASIER CLEARENCE AND STAND OVER. PRICE INCLUDES BLANK GOODS ONLY. SETUP CHARGES APPLY. SEE EXTRA CHARGES BELOW FOR DETAILS. BIKE BIKING CYCLE CYCLING
SKU: Tomcat
Supplier:: Bike USA
Need more information about this product? Our Supplier contact information is listed at the bottom of this page.
Contact vendor to request a blank sample
Extra Charges
Select Product Variants
Customize Product
Bike Sample
click on the product
zoom: right-click and drag
rotate: left-click and drag
move: click both and drag
Powered by
Viewpoint
category search
advanced search
All words
My Stores
Company Store
Project Bids
Request for Proposal
Categories
Your Library
My Account
Reference Guide

FIG. 3D-1

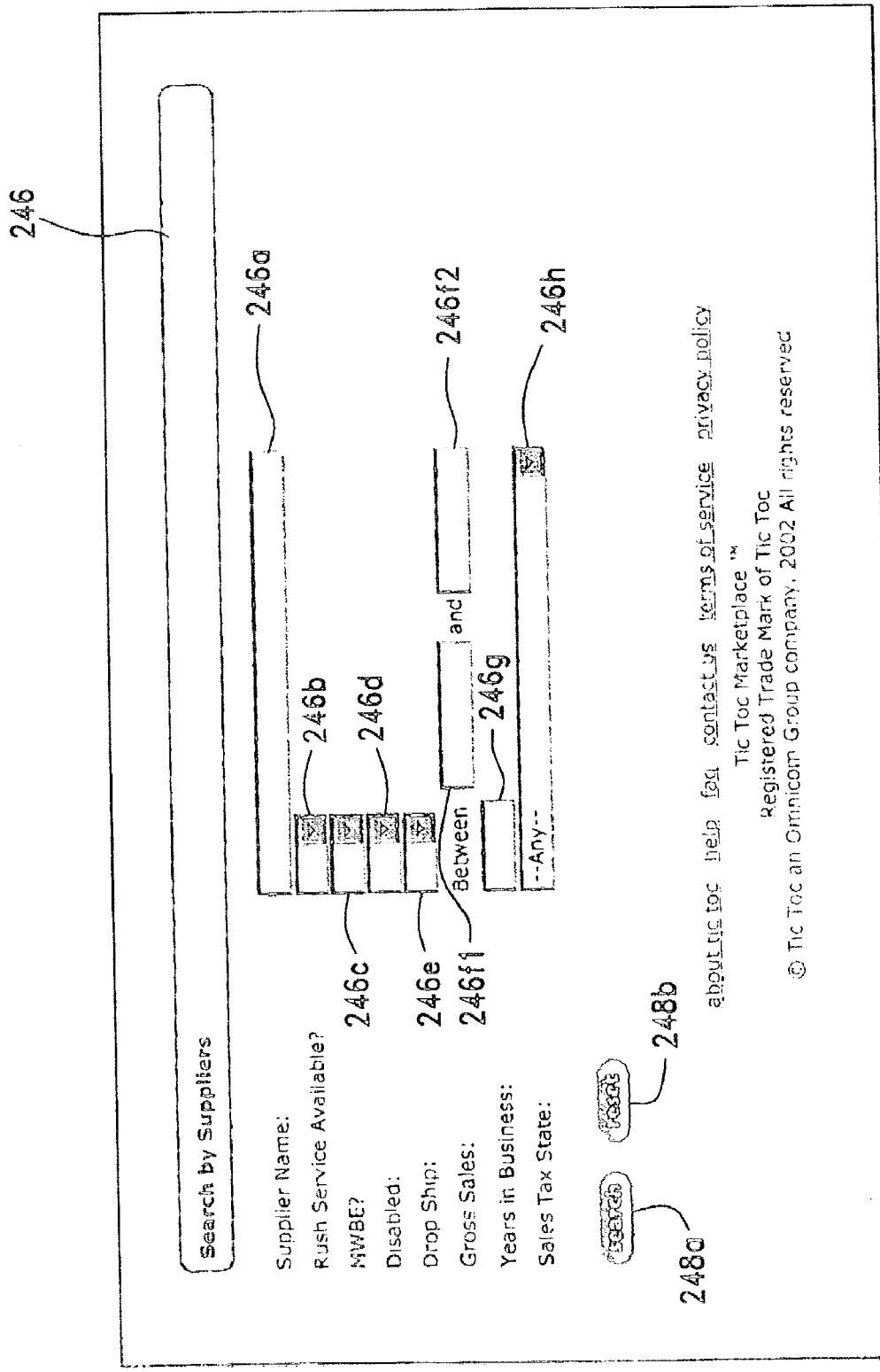

246
Search by Suppliers
Supplier Name:
Rush Service Available?
MWBE?
Disabled:
Drop Ship:
Gross Sales:
Years in Business:
Sales Tax State:
--Any--
Between
and
246a
246b
246c
246d
246e
246f1
246f2
246g
246h
Search
Reset
248a
248b
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FIG. 3D-2

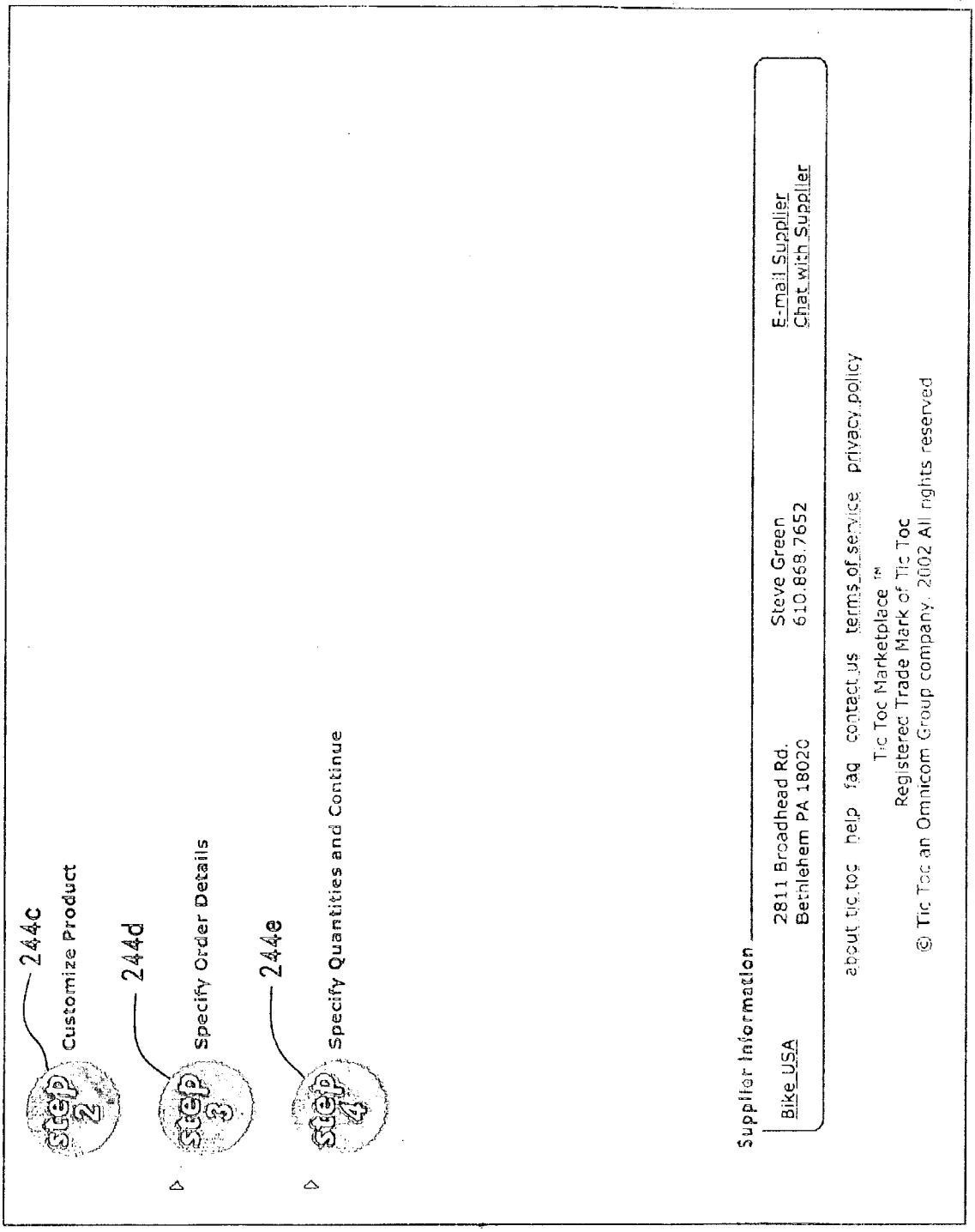
244c
Customize Product
step 2
244d
Specify Order Details
step 3
244e
Specify Quantities and Continue
step 4
Supplier Information
Bike_USA
2811 Broadhead Rd.
Bethlehem PA 18020
Steve Green
610.868.7652
E-mail Supplier
Chat with Supplier
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FIG. 3D-3

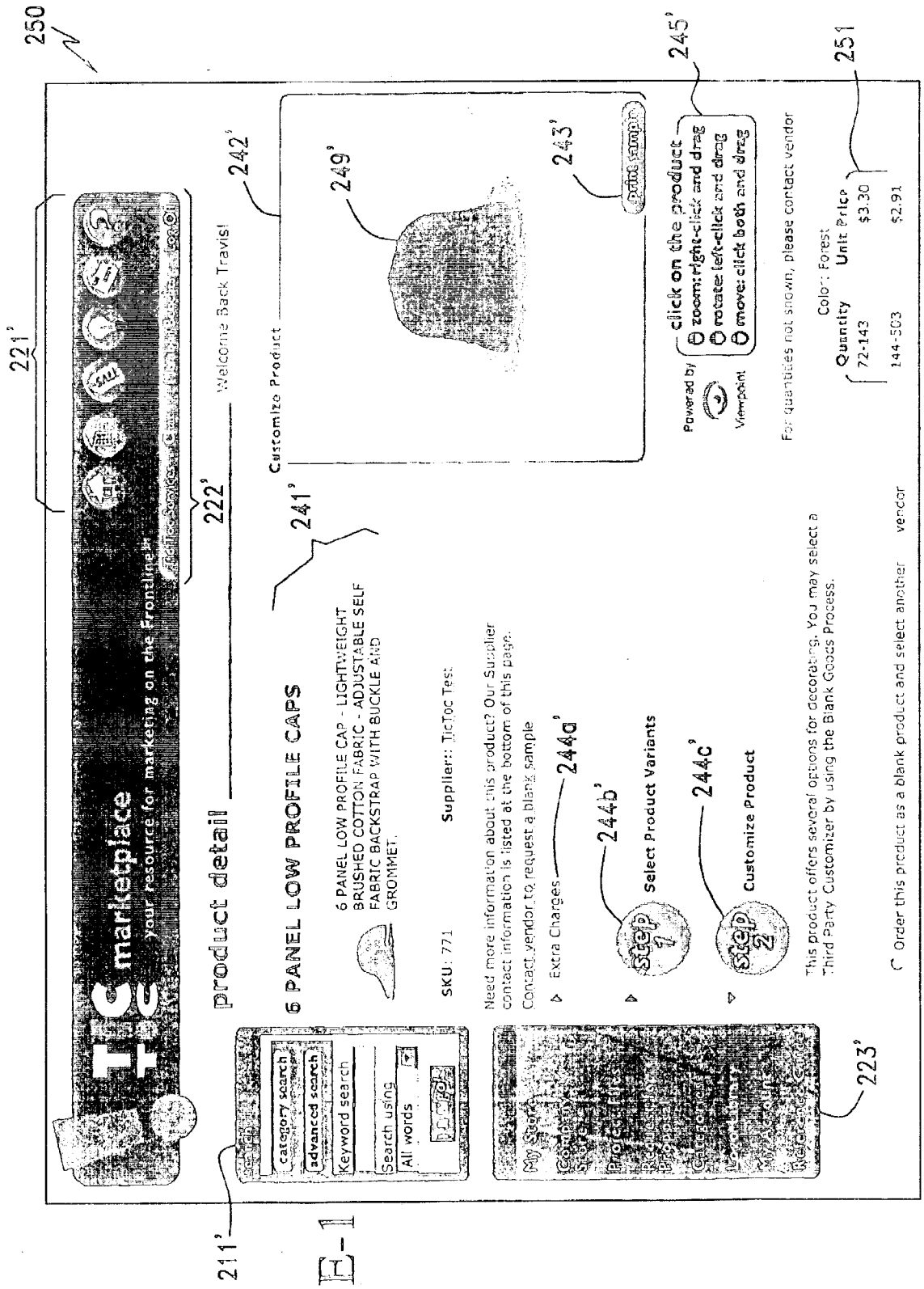
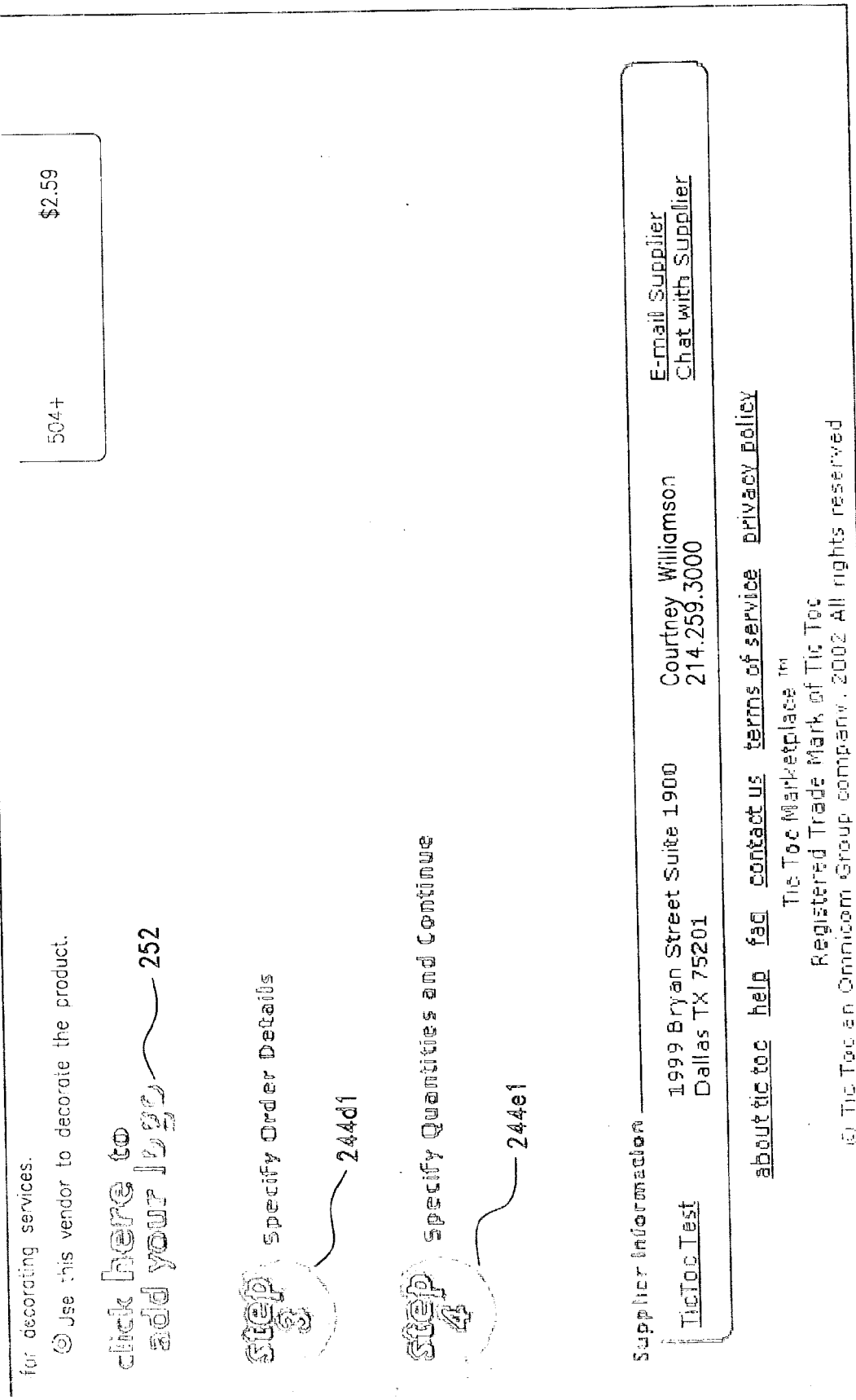

250
221'
222'
241'
242'
243'
244a'
244b'
244c'
245'
251
223'
211'
TicToc marketplace
your resource for marketing on the Frontline
product detail
Welcome Back Travis!
6 PANEL LOW PROFILE CAPS
6 PANEL LOW PROFILE CAP - LIGHTWEIGHT BRUSHED COTTON FABRIC - ADJUSTABLE SELF FABRIC BACKSTRAP WITH BUCKLE AND GROMMET.
SKU: 771
Supplier:: TicToc Test
Need more information about this product? Our Supplier contact information is listed at the bottom of this page.
Contact vendor to request a blank sample
Extra Charges
Step 1
Select Product Variants
Step 2
Customize Product
This product offers several options for decorating. You may select a Third Party Customizer by using the Blank Goods Process.
Order this product as a blank product and select another vendor
Customize Product
print sample
Powered by
Viewpoint
click on the product
zoom: right-click and drag
rotate: left-click and drag
move: click both and drag
For quantities not shown, please contact vendor
Color: Forest
Quantity
Unit Price
72-143
$3.30
144-503
$2.91
category search
advanced search
Keyword search
Search using
All words

FIG. 3E-1

FIG. 3E-2


for decorating services.
Use this vendor to decorate the product.
click here to add your logo
252
504+
$2.59
step 3
Specify Order Details
244d1
step 4
Specify Quantities and Continue
244e1
Supplier Information
TicToc Test
1999 Bryan Street Suite 1900
Dallas TX 75201
Courtney Williamson
214.259.3000
E-mail Supplier
Chat with Supplier
about tic toc help faq contact us terms of service privacy policy
Tic Toc Marketplace ™
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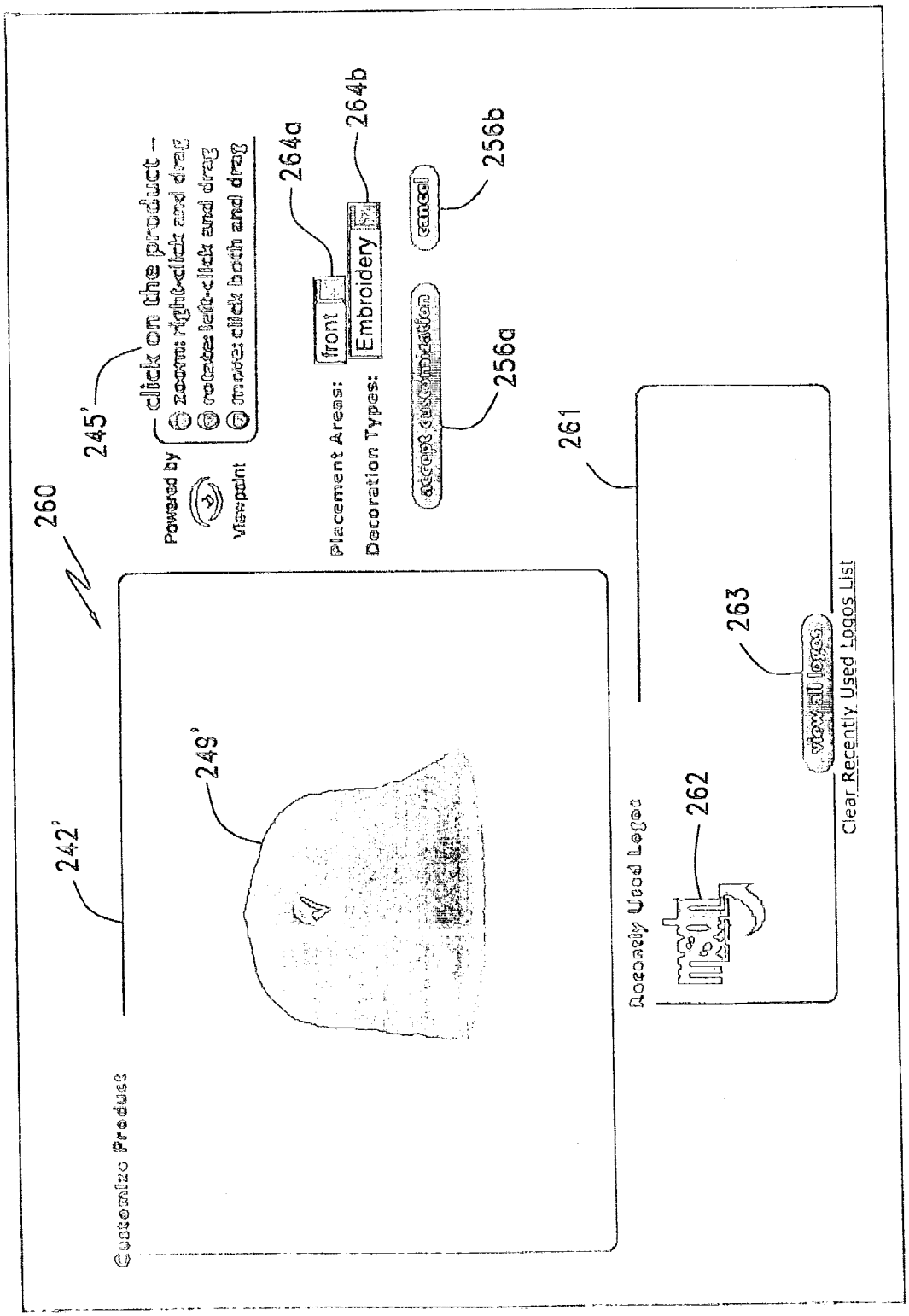
Customize Product
242'
249'
260
245'
click on the product --
zoom: right-click and drag
rotate: left-click and drag
move: click both and drag
Powered by
Viewpoint
264a
264b
Placement Areas:
front
Decoration Types:
Embroidery
accept customization
cancel
256a
256b
261
Recently Used Logos
262
263
view all logos
Clear Recently Used Logos List

FIG. 3F

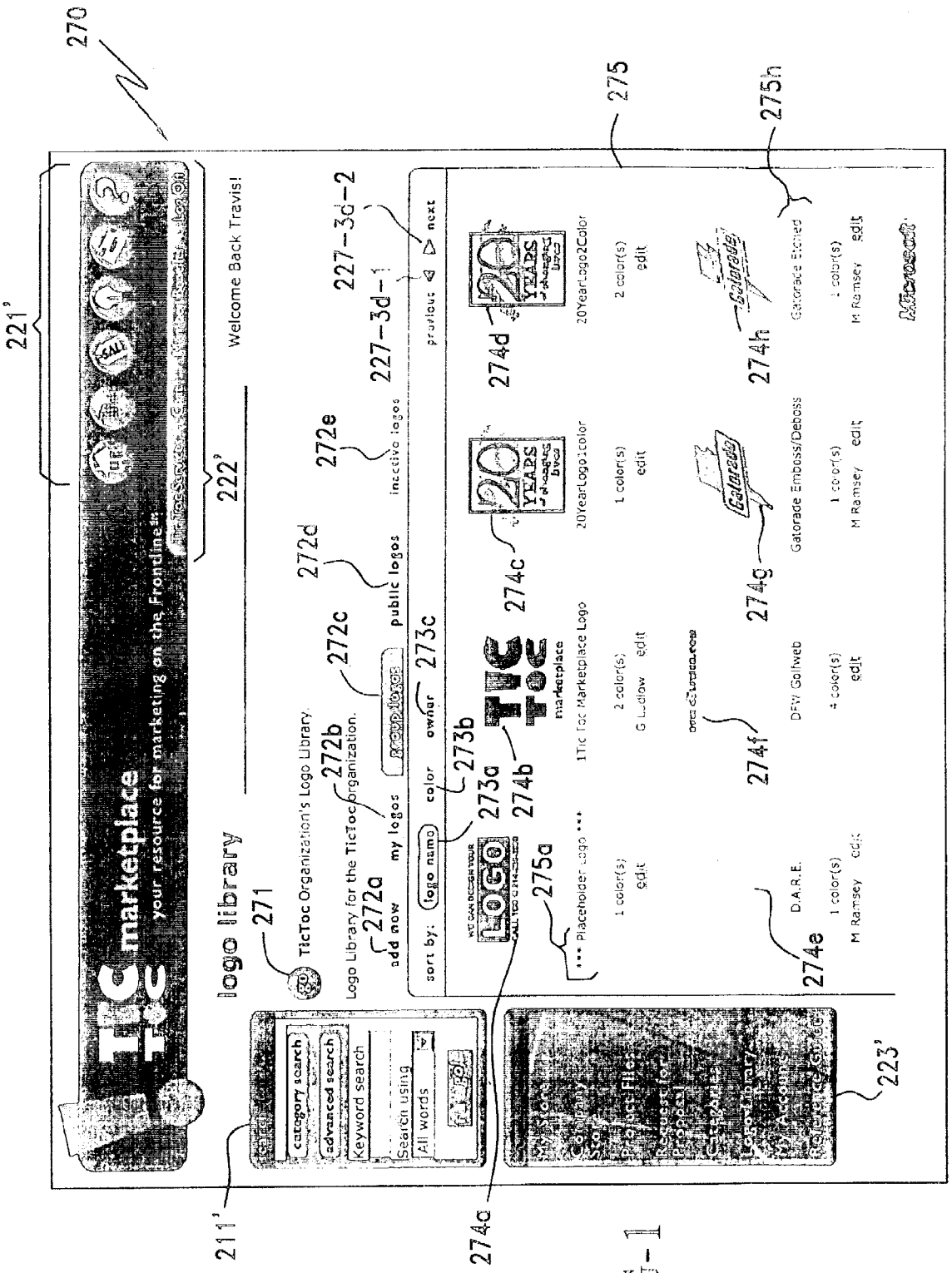
270
221'
222'
Welcome Back Travis!
logo library
271
TicToc Organization's Logo Library.
Logo Library for the TicToc organization.
272a
add now
my logos
272b
272c
272d
public logos
272e
inactive logos
227-3d-1
227-3d-2
previous
next
sort by:
logo name
color
owner
273a
273b
273c
274a
274b
274c
274d
274e
274f
274g
274h
275
275a
275h
*** Placeholder Logo ***
1 color(s)
edit
2 color(s)
G Ludlow
edit
1 color(s)
edit
2 color(s)
edit
D.A.R.E.
1 color(s)
M Ramsey
edit
DFW Golfweb
4 color(s)
edit
Gatorade Emboss/Deboss
1 color(s)
M Ramsey
edit
Gatorade Etched
1 color(s)
M Ramsey
edit
category search
advanced search
Keyword search
Search using
All words
211'
223'

FIG. 3G-1

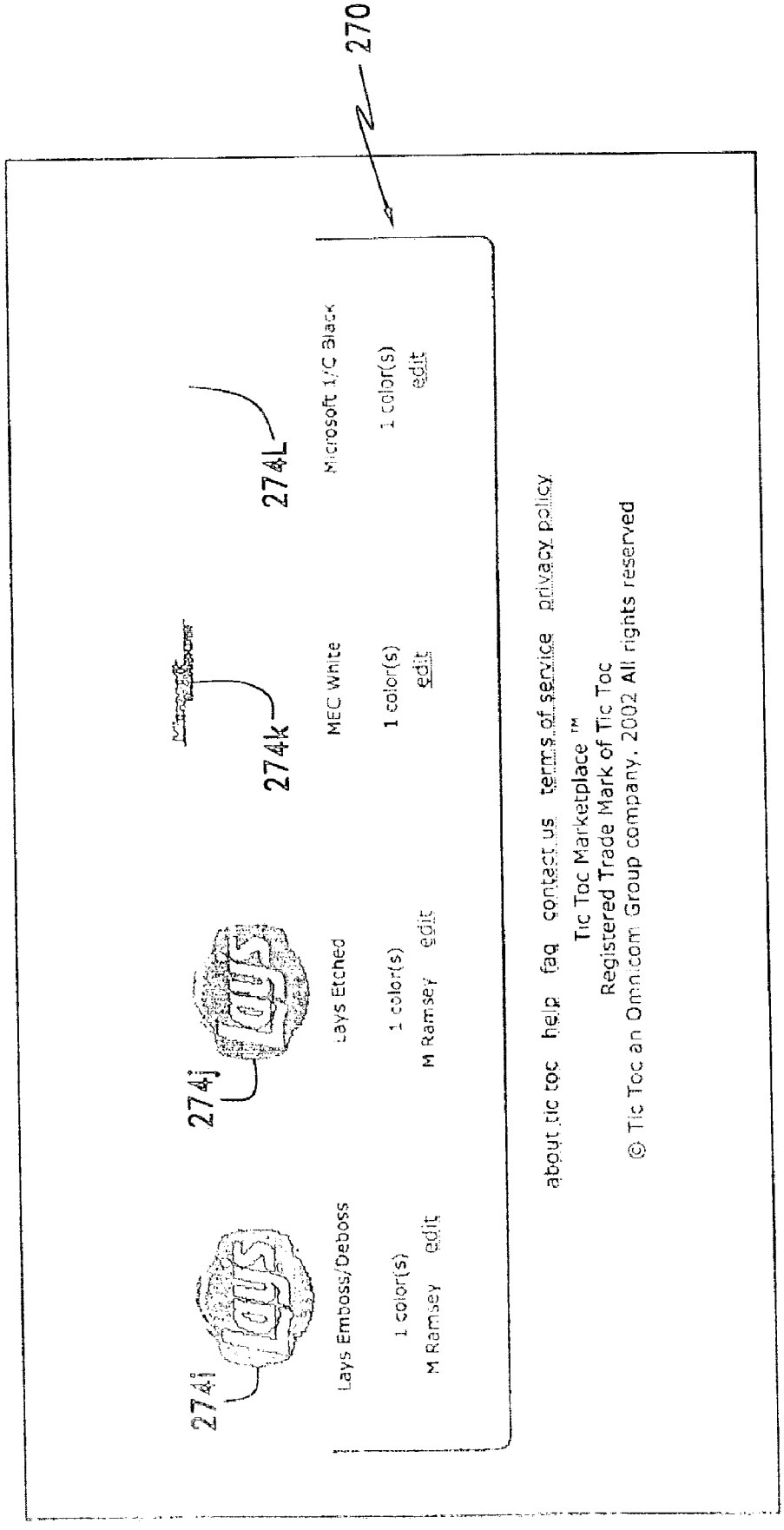
270
274L
274k
274j
274i
Microsoft I/C Black
MEC White
Lays Etched
Lays Emboss/Deboss
1 color(s)
edit
M Ramsey
about tic toc help faq contact us terms of service privacy policy
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FIG. 3G-2

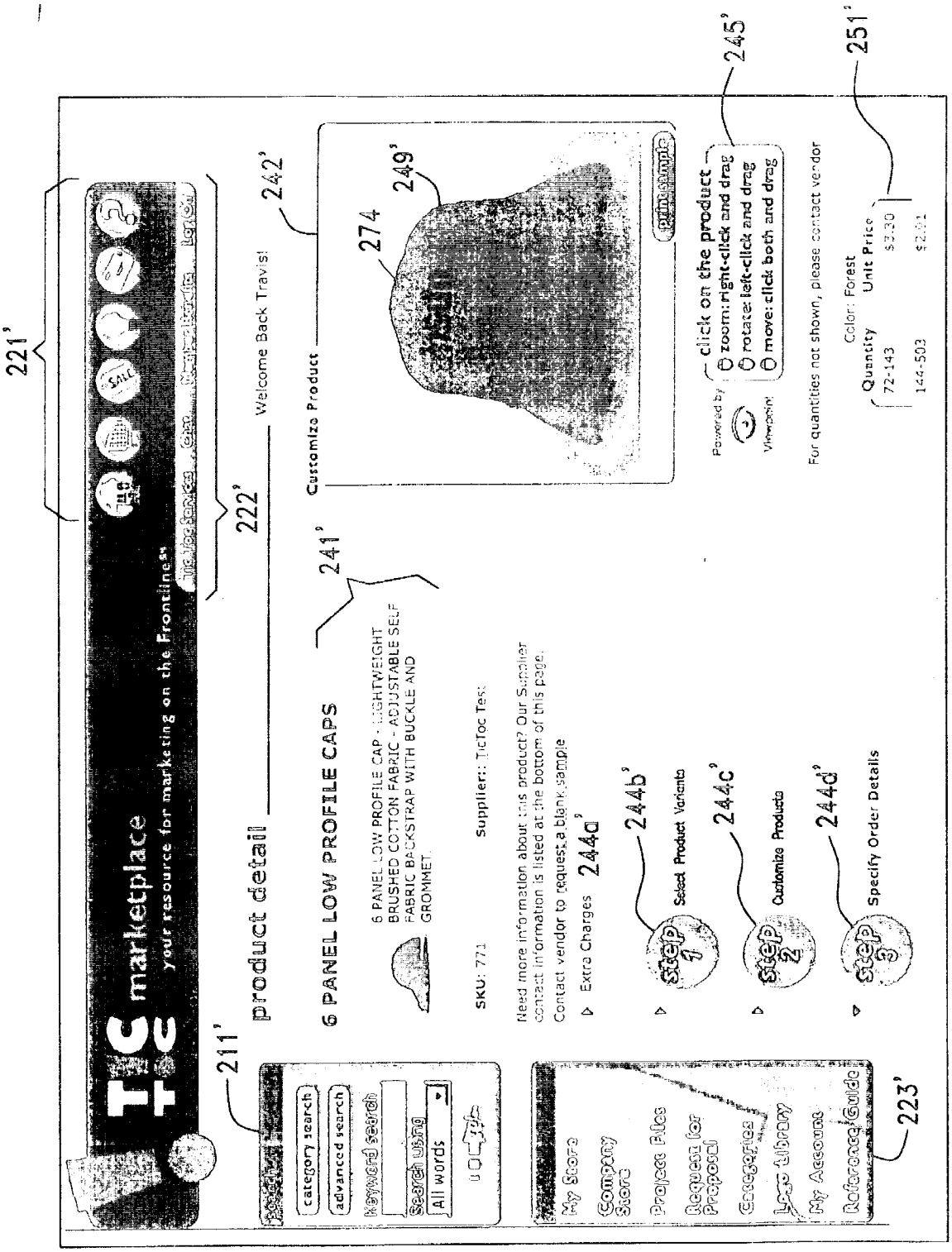
221'
211'
222'
242'
241'
245'
251'
223'
product detail
Welcome Back Travis!
Customize Product
6 PANEL LOW PROFILE CAPS
6 PANEL LOW PROFILE CAP - LIGHTWEIGHT BRUSHED COTTON FABRIC - ADJUSTABLE SELF FABRIC BACKSTRAP WITH BUCKLE AND GROMMET
SKU: 771
Supplier: TcToc Test
Need more information about this product? Our Supplier contact information is listed at the bottom of this page.
Contact vendor to request a blank sample
Extra Charges
244a'
244b'
244c'
244d'
Select Product Variants
Customize Products
Specify Order Details
274
249'
click on the product
zoom: right-click and drag
rotate: left-click and drag
move: click both and drag
For quantities not shown, please contact vendor
Color: Forest
Quantity
Unit Price
72-143
144-503
Search
category search
advanced search
Keyword search
Search using
All words
My Store
Company Store
Project Files
Request for Proposal
Categories
Logo Library
My Account
Reference Guide

FIG. 3H-1

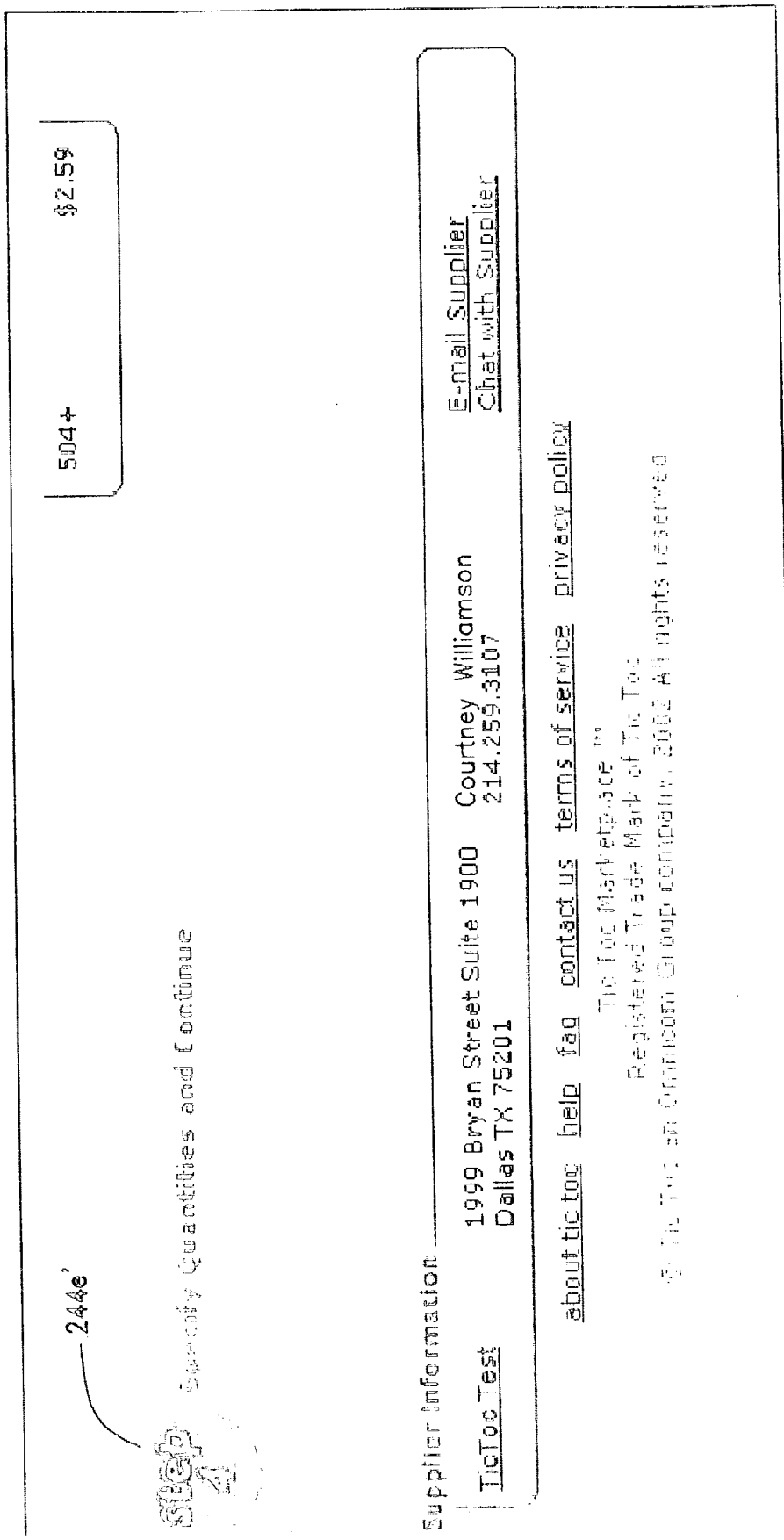
244e'
Quantity Quantities and Continue
504+
$2.59
Supplier Information
TicToc Test
1999 Bryan Street Suite 1900
Dallas TX 75201
Courtney Williamson
214.259.3107
E-mail Supplier
Chat with Supplier
about tic toc help faq contact us terms of service privacy policy

FIG. 3H-2

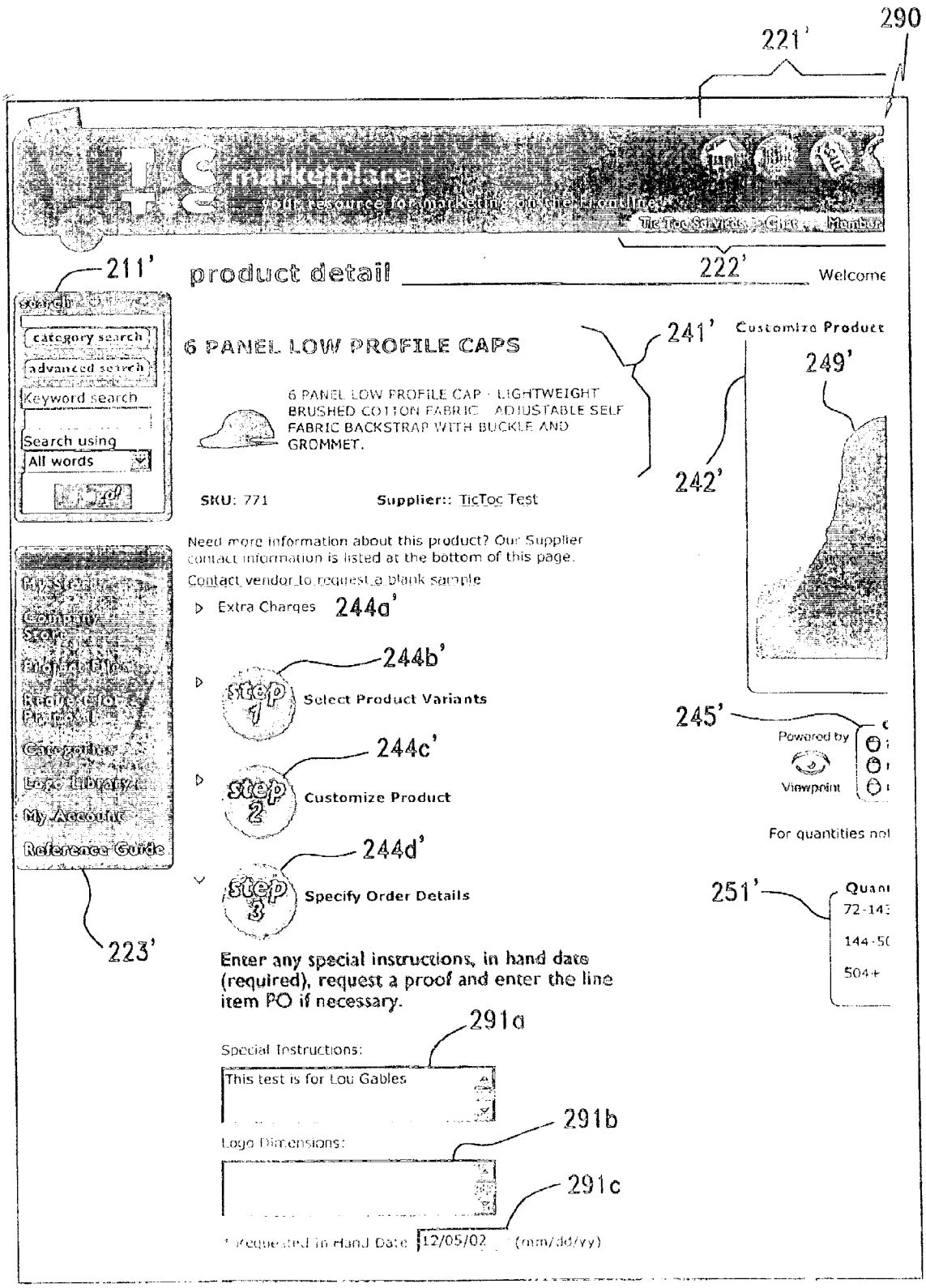
290
221'
211'
222'
product detail
Welcome
category search
advanced search
Keyword search
Search using
All words
6 PANEL LOW PROFILE CAPS
241'
Customize Product
249'
242'
6 PANEL LOW PROFILE CAP - LIGHTWEIGHT BRUSHED COTTON FABRIC - ADJUSTABLE SELF FABRIC BACKSTRAP WITH BUCKLE AND GROMMET.
SKU: 771
Supplier:: TicToc Test
Need more information about this product? Our Supplier contact information is listed at the bottom of this page.
Contact vendor to request a blank sample
Extra Charges
244a'
244b'
Select Product Variants
244c'
Customize Product
244d'
Specify Order Details
245'
Powered by
Viewpoint
For quantities not
251'
223'
Enter any special instructions, in hand date (required), request a proof and enter the line item PO if necessary.
291a
Special Instructions:
This test is for Lou Gables
291b
Logo Dimensions:
291c
(mm/dd/yy)

FIG. 3I-1

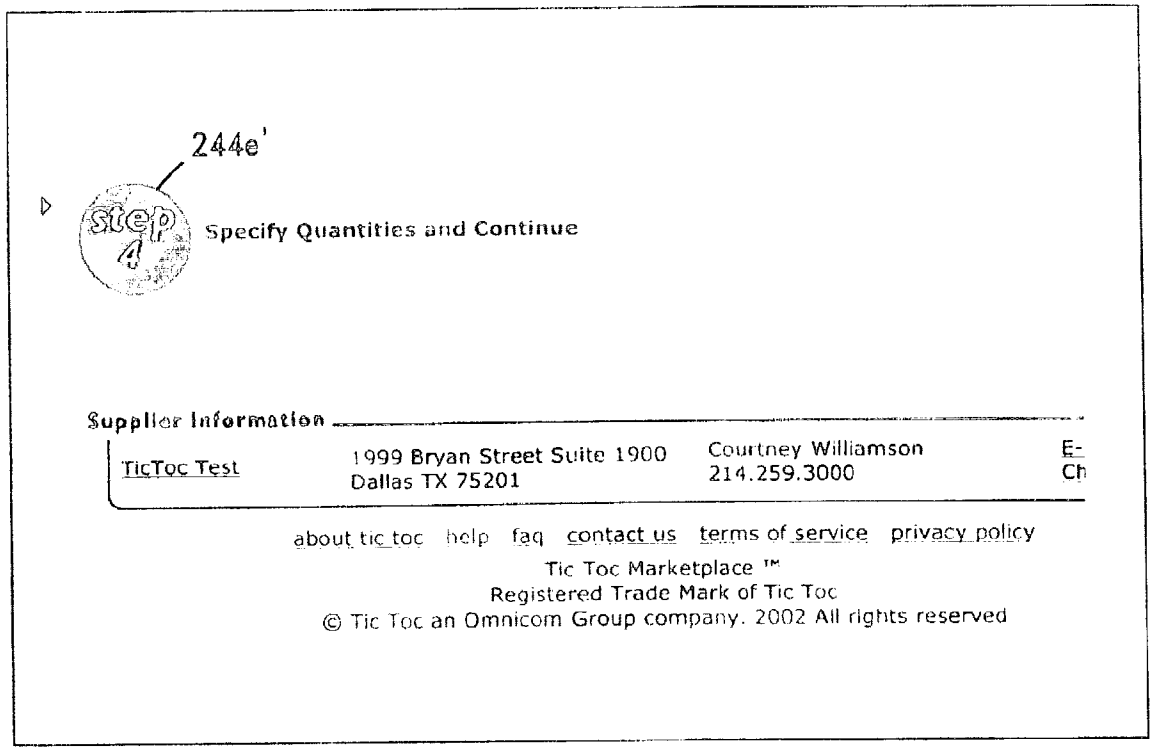
244e'
Step 4
Specify Quantities and Continue
Supplier Information
TicToc Test
1999 Bryan Street Suite 1900
Dallas TX 75201
Courtney Williamson
214.259.3000
E-
Ch
about tic toc help faq contact us terms of service privacy policy
Tic Toc Marketplace ™
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FIG. 3I-2

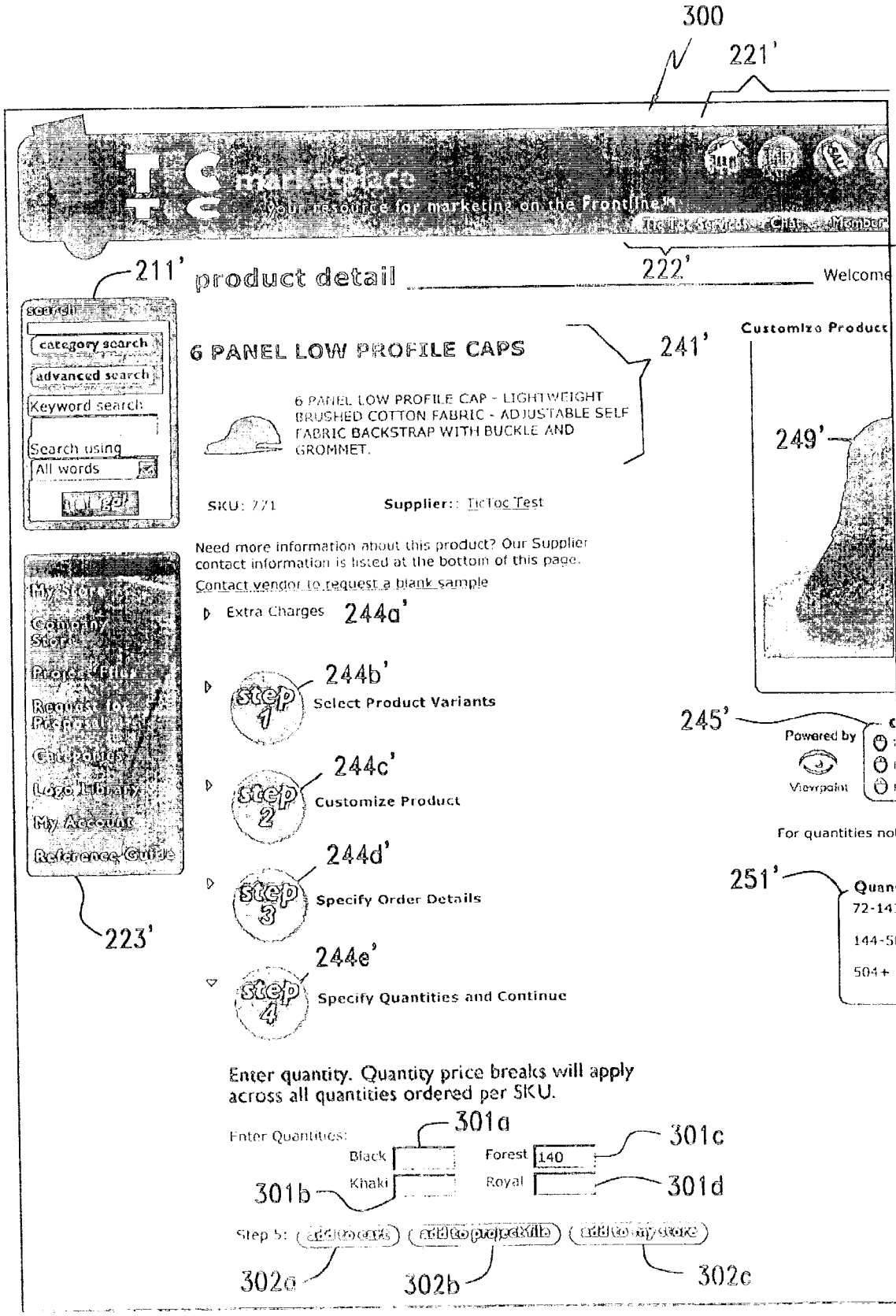
300
221'
211'
product detail
222'
Welcome
search
category search
advanced search
Keyword search
Search using
All words
6 PANEL LOW PROFILE CAPS
241'
6 PANEL LOW PROFILE CAP - LIGHTWEIGHT BRUSHED COTTON FABRIC - ADJUSTABLE SELF FABRIC BACKSTRAP WITH BUCKLE AND GROMMET.
SKU: 771
Supplier:: TicToc Test
Need more information about this product? Our Supplier contact information is listed at the bottom of this page.
Contact vendor to request a blank sample
Customize Product
249'
245'
Powered by
Viewpoint
For quantities no
251'
Quant
72-14
144-5
504+
Extra Charges
244a'
244b'
Select Product Variants
244c'
Customize Product
244d'
Specify Order Details
244e'
Specify Quantities and Continue
223'
Enter quantity. Quantity price breaks will apply across all quantities ordered per SKU.
Enter Quantities:
301a
Black
Khaki
Forest
140
Royal
301b
301c
301d
Step 5:
add to cart
add to project file
add to my store
302a
302b
302c

FIG. 3J

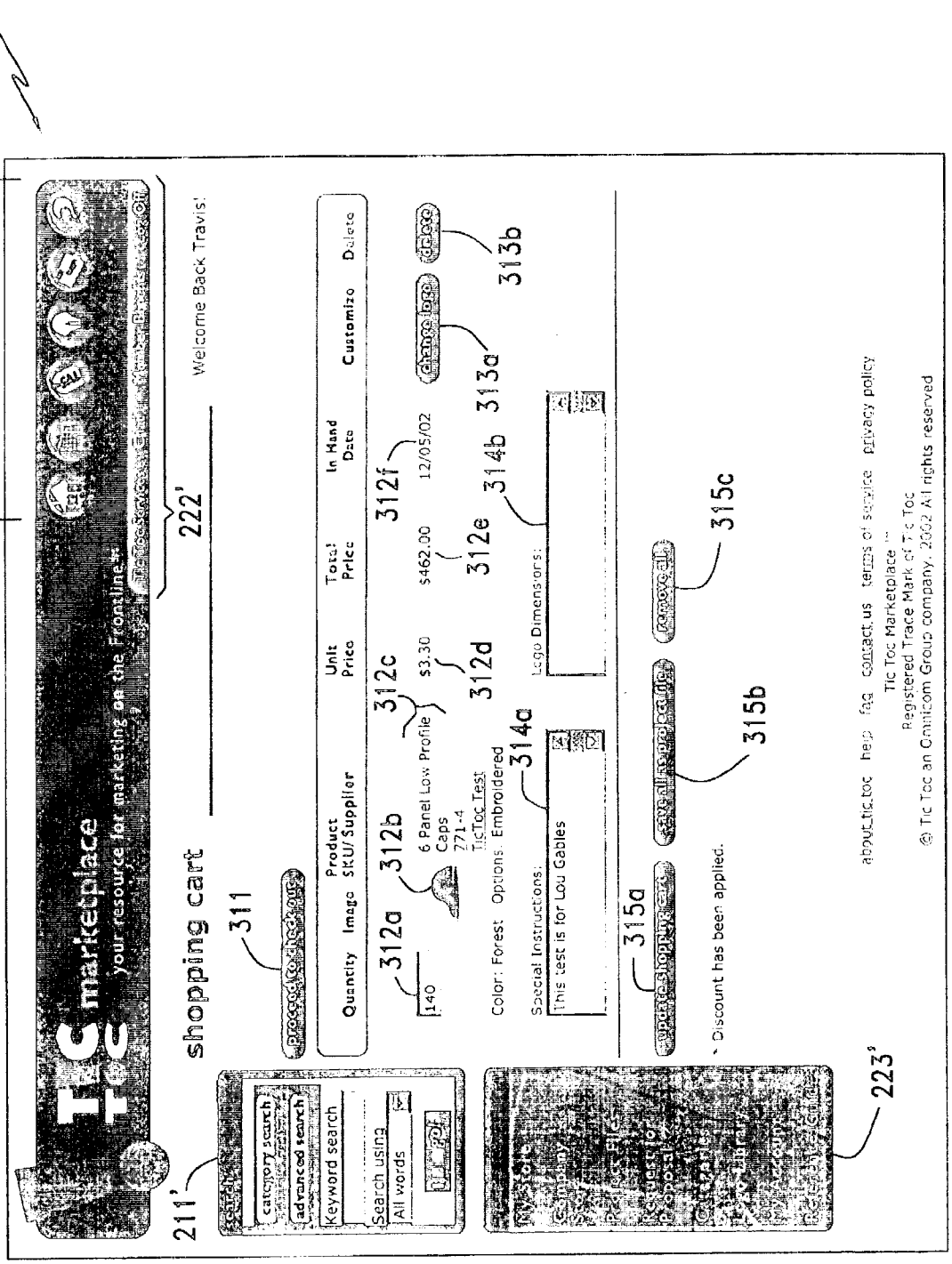
310
221'
222'
211'
223'
marketplace
your resource for marketing on the Frontline
shopping cart
Welcome Back Travis!
311
Quantity
Image
Product SKU/Supplier
Unit Price
Total Price
In Hand Date
Customize
Delete
312a
312b
312c
312d
312e
312f
313a
313b
314a
314b
315a
315b
315c
140
6 Panel Low Profile Caps
771-4
TicToc Test
$3.30
$462.00
12/05/02
Color: Forest Options: Embroidered
Special Instructions:
This test is for Lou Gables
Logo Dimensions:
Discount has been applied.
category search
advanced search
Keyword search
Search using
All words
Tic Toc Marketplace
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FIG. 3K

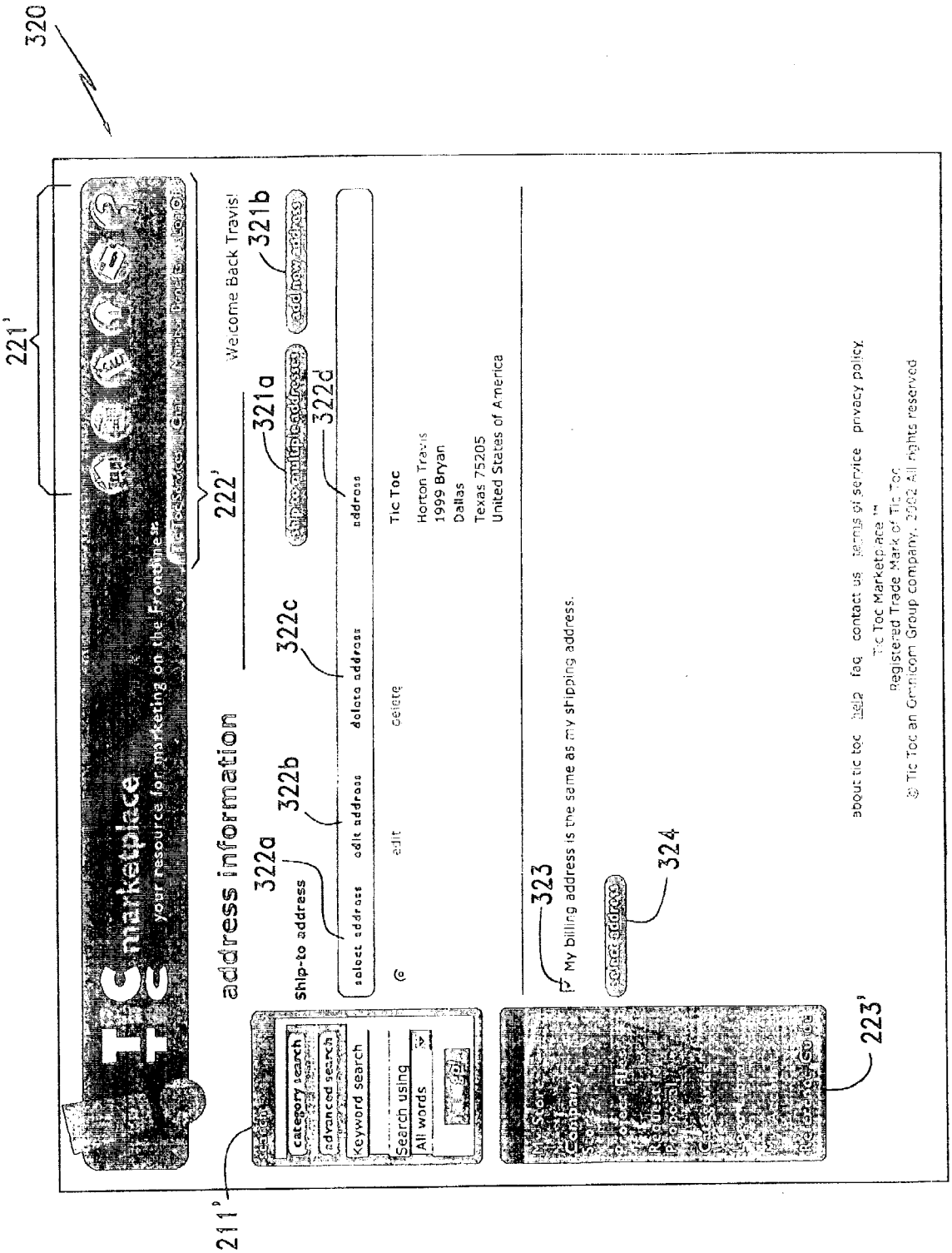
320
221'
211'
222'
223'
321a
321b
322a
322b
322c
322d
323
324
address information
Welcome Back Travis!
ship-to address
select address
edit address
delete address
add new address
edit
delete
Tic Toc
Horton Travis
1999 Bryan
Dallas
Texas 75205
United States of America
My billing address is the same as my shipping address.
select address
category search
advanced search
keyword search
Search using
All words
about tic toc
help
faq
contact us
terms of service
privacy policy
Tic Toc Marketplace ™
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FIG. 3L

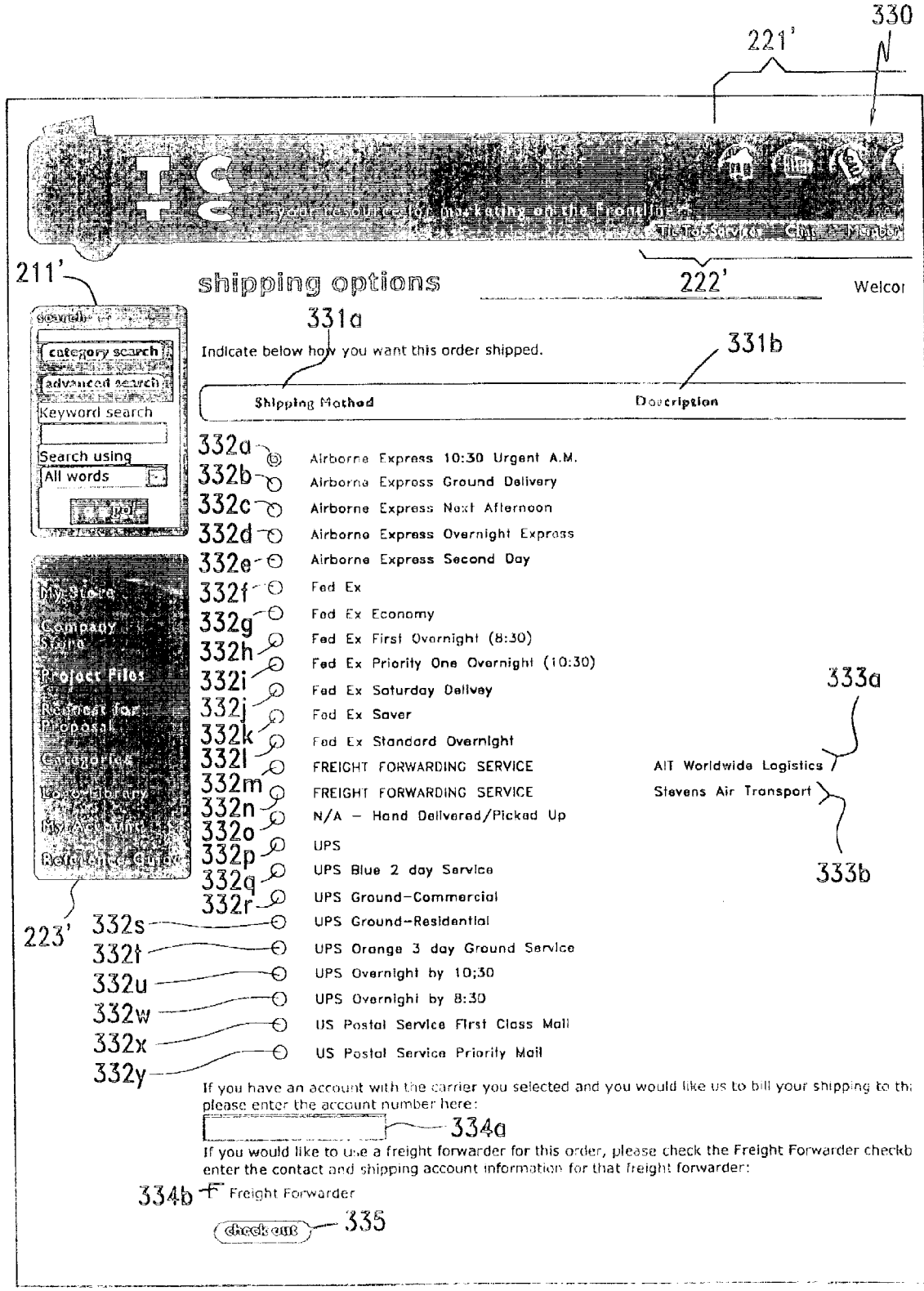
330
221'
211'
222'
shipping options
Welcor
search
category search
advanced search
Keyword search
Search using
All words
go!
331a
Indicate below how you want this order shipped.
331b
Shipping Method
Description
332a Airborne Express 10:30 Urgent A.M.
332b Airborne Express Ground Delivery
332c Airborne Express Next Afternoon
332d Airborne Express Overnight Express
332e Airborne Express Second Day
332f Fed Ex
332g Fed Ex Economy
332h Fed Ex First Overnight (8:30)
332i Fed Ex Priority One Overnight (10:30)
332j Fed Ex Saturday Delivey
332k Fed Ex Saver
332l Fed Ex Standard Overnight
332m FREIGHT FORWARDING SERVICE
332n FREIGHT FORWARDING SERVICE
332o N/A – Hand Delivered/Pickad Up
332p UPS
332q UPS Blue 2 day Service
332r UPS Ground-Commercial
332s UPS Ground-Residential
332t UPS Orange 3 day Ground Service
332u UPS Overnight by 10:30
332w UPS Overnight by 8:30
332x US Postal Service First Class Mail
332y US Postal Service Priority Mail
333a
AIT Worldwide Logistics
Stevens Air Transport
333b
223'
If you have an account with the carrier you selected and you would like us to bill your shipping to thi
please enter the account number here:
334a
If you would like to use a freight forwarder for this order, please check the Freight Forwarder checkb
enter the contact and shipping account information for that freight forwarder:
334b Freight Forwarder
checkout
335

FIG. 3M-1

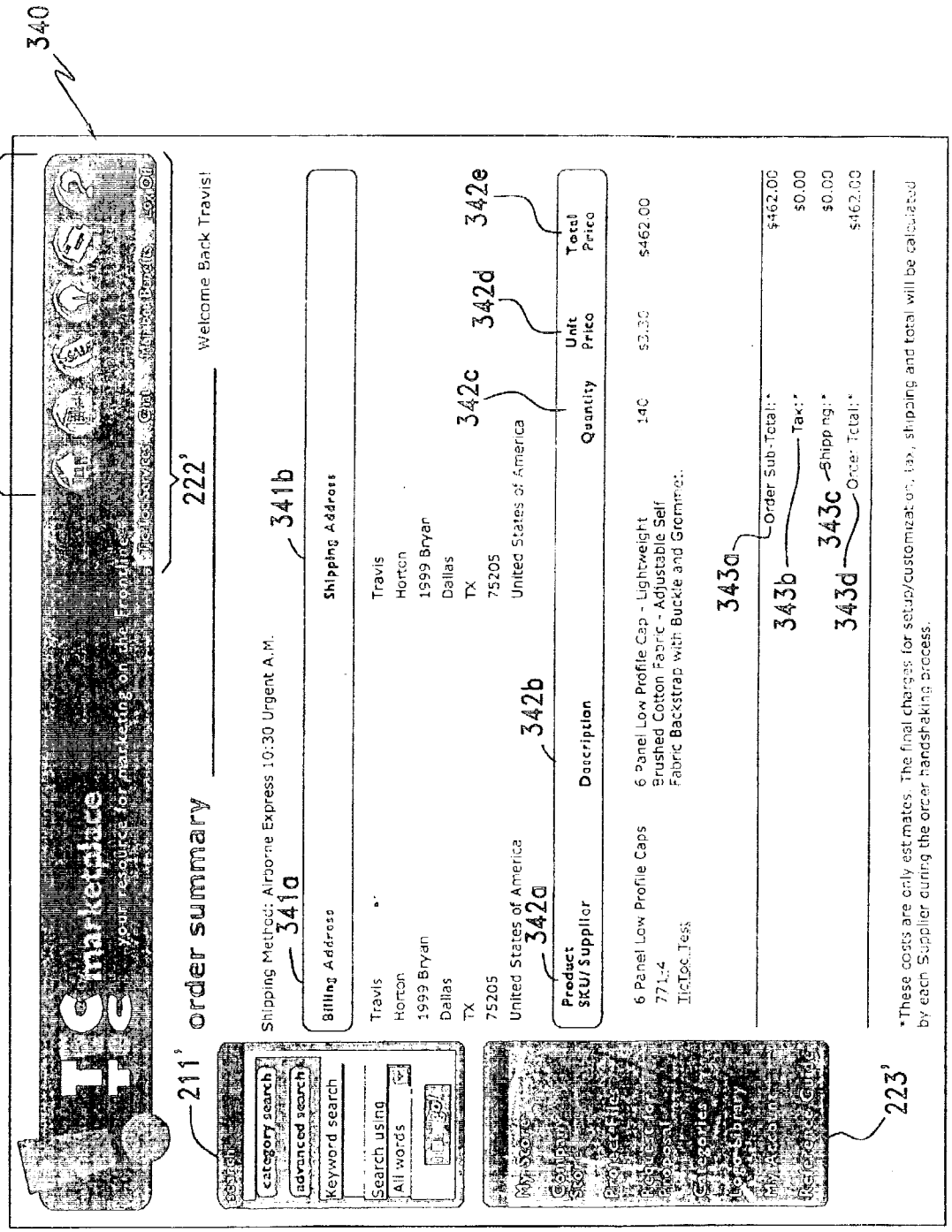
340
221'
211'
222'
223'
order summary
Welcome Back Travis!
Shipping Method: Airborne Express 10:30 Urgent A.M.
341a
341b
Billing Address
Shipping Address
Travis
Horton
1999 Bryan
Dallas
TX
75205
United States of America
342a
342b
342c
342d
342e
Product SKU/Supplier
Description
Quantity
Unit Price
Total Price
6 Panel Low Profile Caps
771-4
TicToc Tess
6 Panel Low Profile Cap - Lightweight
Brushed Cotton Fabric - Adjustable Self
Fabric Backstrap with Buckle and Grommet.
140
$3.30
$462.00
343a
Order Sub-Total:*
$462.00
343b
Tax:*
$0.00
343c
Shipping:*
$0.00
343d
Order Total:*
$462.00
*These costs are only estimates. The final charges for setup/customization, tax, shipping and total will be calculated by each Supplier during the order handshaking process.

FIG. 3M-2

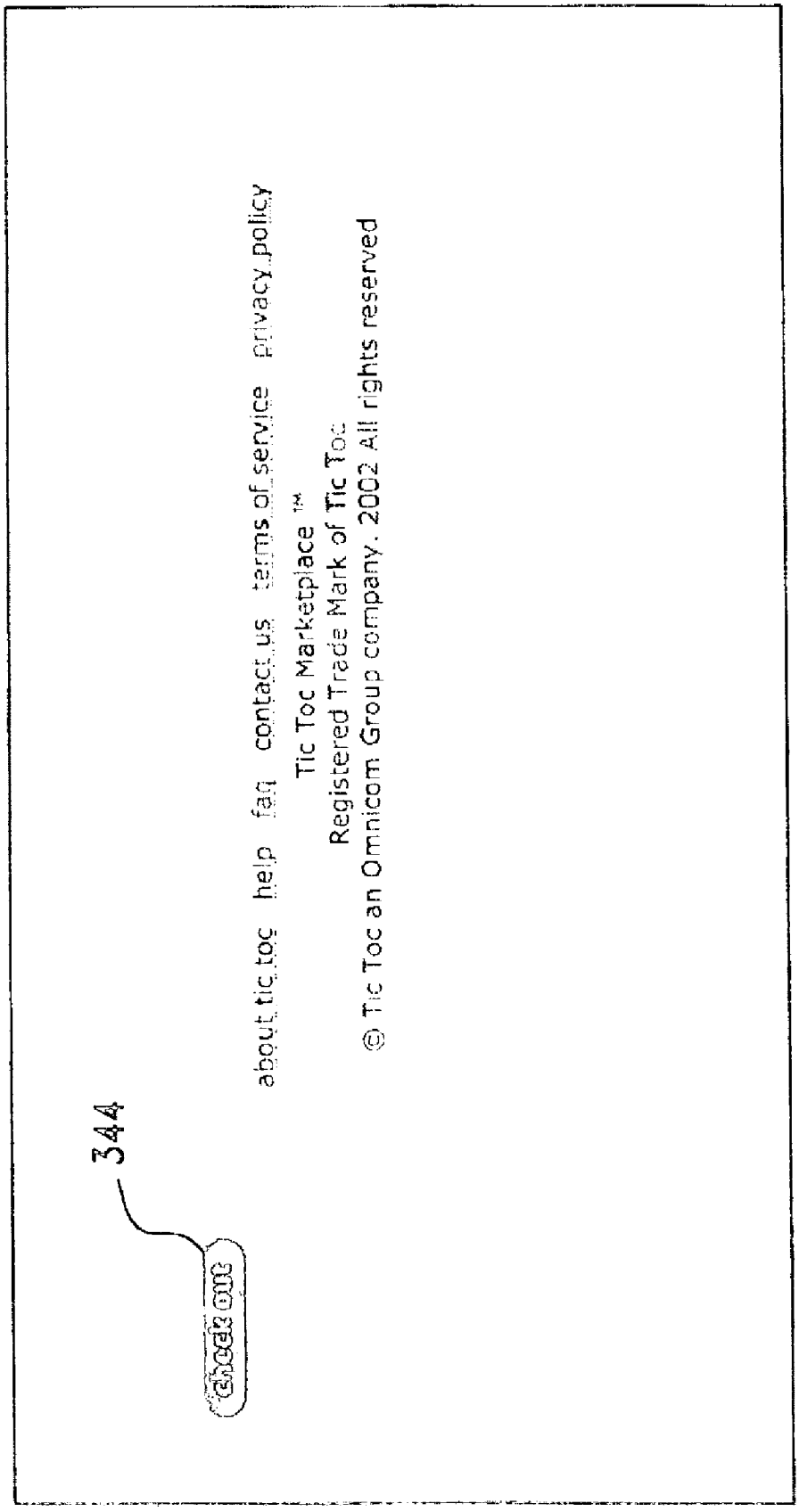
344
about tic toc help faq contact us terms of service privacy policy
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FIG. 3M-3

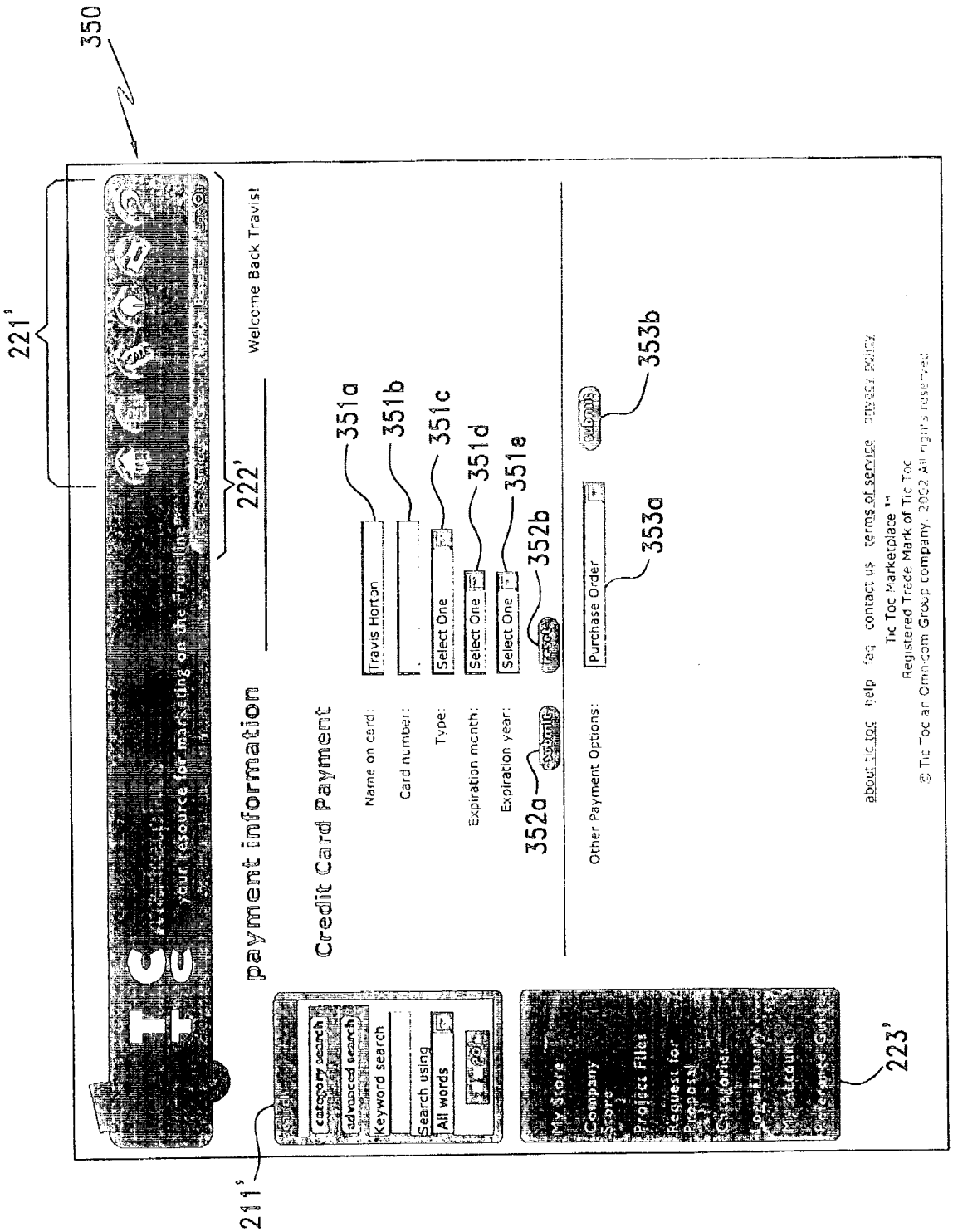
350
221'
222'
223'
211'
your resource for marketing on the Frontline
Welcome Back Travis!
payment information
Credit Card Payment
Name on card:
Travis Horton
Card number:
Type:
Select One
Expiration month:
Select One
Expiration year:
Select One
Other Payment Options:
Purchase Order
351a
351b
351c
351d
351e
352a
352b
353a
353b
category search
advanced search
Keyword search
Search using
All words
My Store
Company Score
Project Filer
Request for Proposal
Categories
Logo Library
My Account
Preference Guide
about tic toc help faq contact us terms of service privacy policy
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FIG. 3N

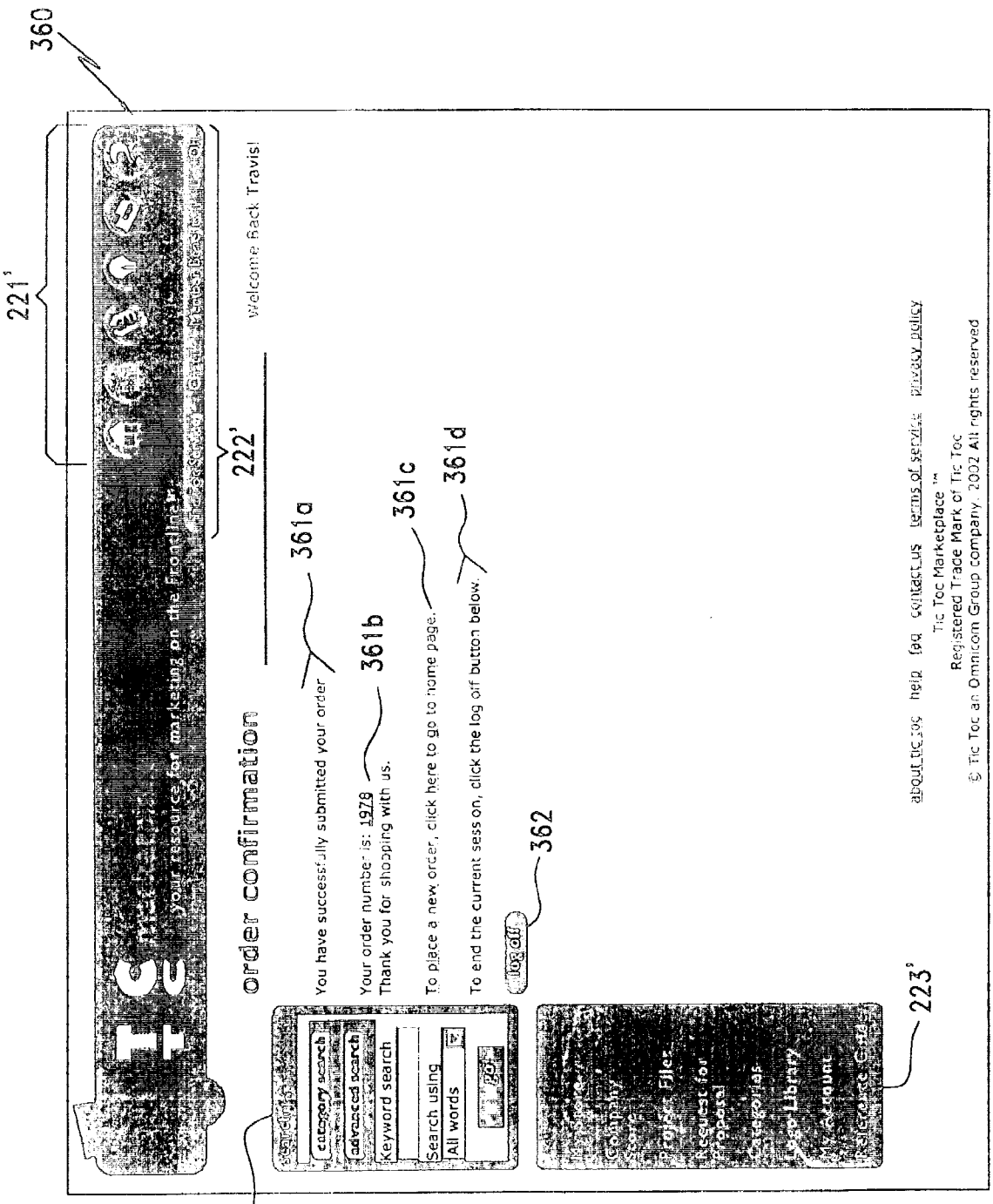
360
221'
222'
Welcome Back Travis!
order confirmation
361a
You have successfully submitted your order
361b
Your order number is: 1978
Thank you for shopping with us.
361c
To place a new order, click here to go to home page.
361d
To end the current session, click the log off button below.
362
log off
category search
advanced search
Keyword search
Search using
All words
223'
211'
about tic toc help faq contact us terms of service privacy policy
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FIG. 30

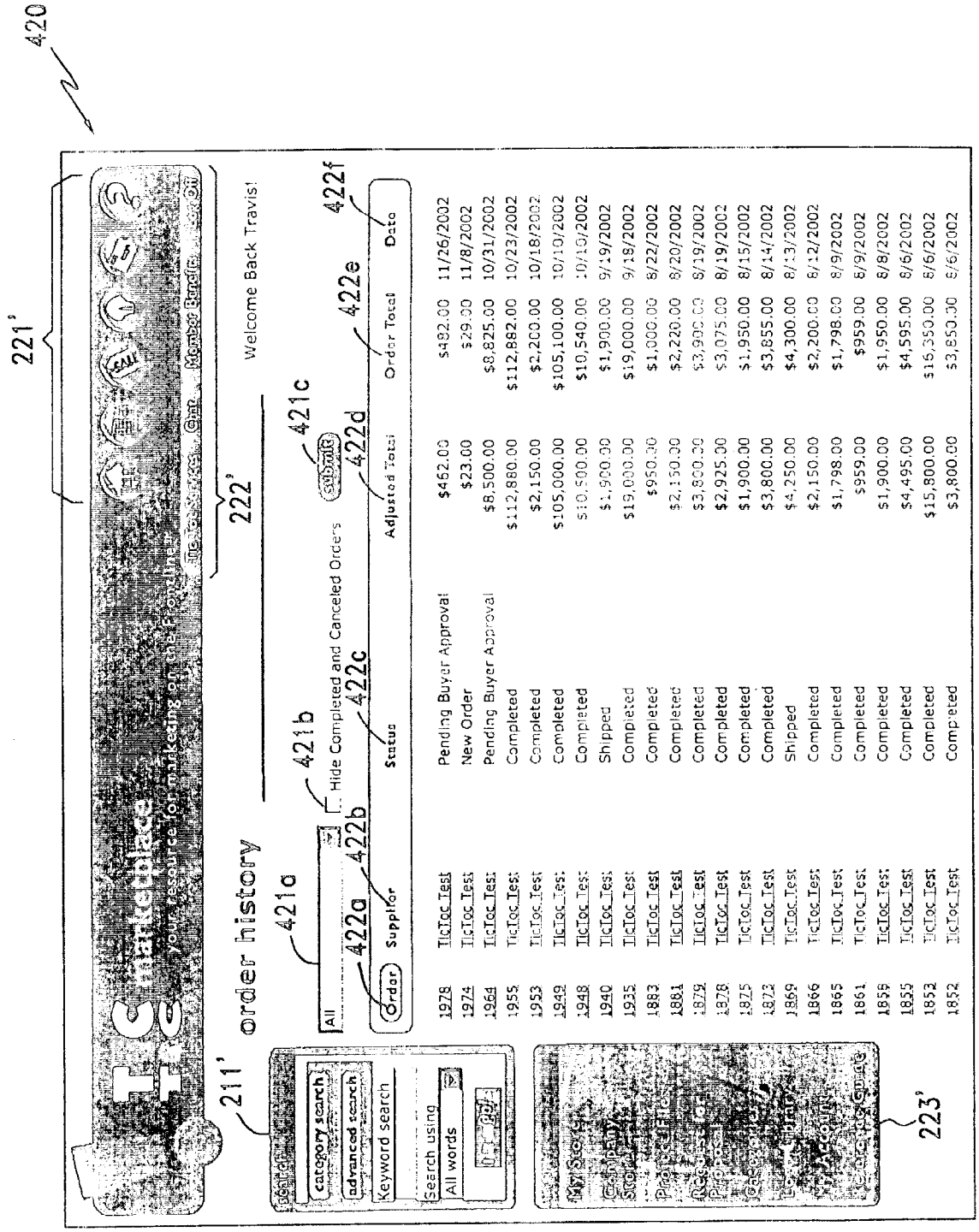
420
221'
211'
223'
222'
order history
Welcome Back Travis!
421a
421b
421c
422a
422b
422c
422d
422e
422f
Hide Completed and Canceled Orders
Submit
All
Order
Supplier
Status
Adjusted Total
Order Total
Date
1978 TicToc_Test Pending Buyer Approval $462.00 $482.00 11/26/2002
1974 TicToc_Test New Order $23.00 $29.00 11/8/2002
1964 TicToc_Test Pending Buyer Approval $8,500.00 $8,825.00 10/31/2002
1955 TicToc_Test Completed $112,880.00 $112,882.00 10/23/2002
1953 TicToc_Test Completed $2,150.00 $2,200.00 10/18/2002
1949 TicToc_Test Completed $105,000.00 $105,100.00 10/10/2002
1948 TicToc_Test Completed $10,500.00 $10,540.00 10/10/2002
1940 TicToc_Test Shipped $1,900.00 $1,900.00 9/19/2002
1935 TicToc_Test Completed $19,000.00 $19,000.00 9/18/2002
1883 TicToc_Test Completed $950.00 $1,000.00 8/22/2002
1881 TicToc_Test Completed $2,150.00 $2,220.00 8/20/2002
1879 TicToc_Test Completed $3,800.00 $3,900.00 8/19/2002
1878 TicToc_Test Completed $2,925.00 $3,075.00 8/19/2002
1875 TicToc_Test Completed $1,900.00 $1,950.00 8/15/2002
1872 TicToc_Test Completed $3,800.00 $3,855.00 8/14/2002
1869 TicToc_Test Shipped $4,250.00 $4,300.00 8/13/2002
1866 TicToc_Test Completed $2,150.00 $2,200.00 8/12/2002
1865 TicToc_Test Completed $1,798.00 $1,798.00 8/9/2002
1861 TicToc_Test Completed $959.00 $959.00 8/9/2002
1858 TicToc_Test Completed $1,900.00 $1,950.00 8/8/2002
1855 TicToc_Test Completed $4,495.00 $4,595.00 8/6/2002
1853 TicToc_Test Completed $15,800.00 $16,350.00 8/6/2002
1852 TicToc_Test Completed $3,800.00 $3,850.00 8/6/2002
category search
advanced search
Keyword search
Search using
All words

FIG. 3P

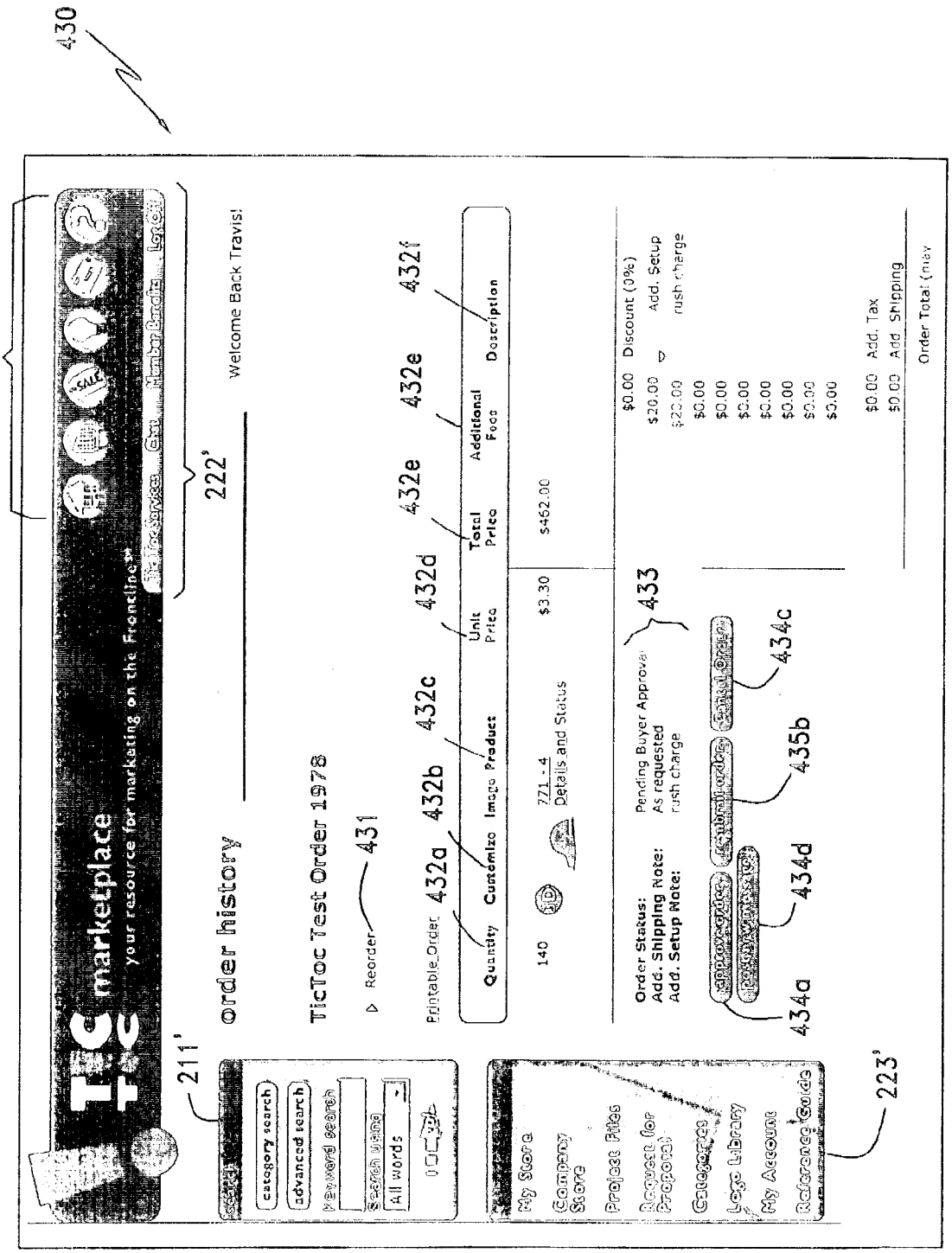
430
221'
222'
211'
223'
TicToc marketplace
your resource for marketing on the Frontline
Welcome Back Travis!
order history
TicToc Test Order 1978
Reorder
431
Printable Order
432a
432b
432c
432d
432e
432e
432f
Quantity
Customize
Image
Product
Unit Price
Total Price
Additional Fees
Description
140
771 - 4
Details and Status
$3.30
$462.00
Order Status:
Add. Shipping Note:
Add. Setup Note:
Pending Buyer Approval
As requested
rush charge
433
$0.00 Discount (0%)
$20.00 Add. Setup
$20.00 rush charge
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00
$0.00 Add. Tax
$0.00 Add. Shipping
Order Total (may
category search
advanced search
Keyword search
Search using
All words
My Store
Company Store
Project Files
Request for Proposal
Categories
Logo Library
My Account
Reference Guide
434a
434d
435b
434c

FIG. 3Q-1

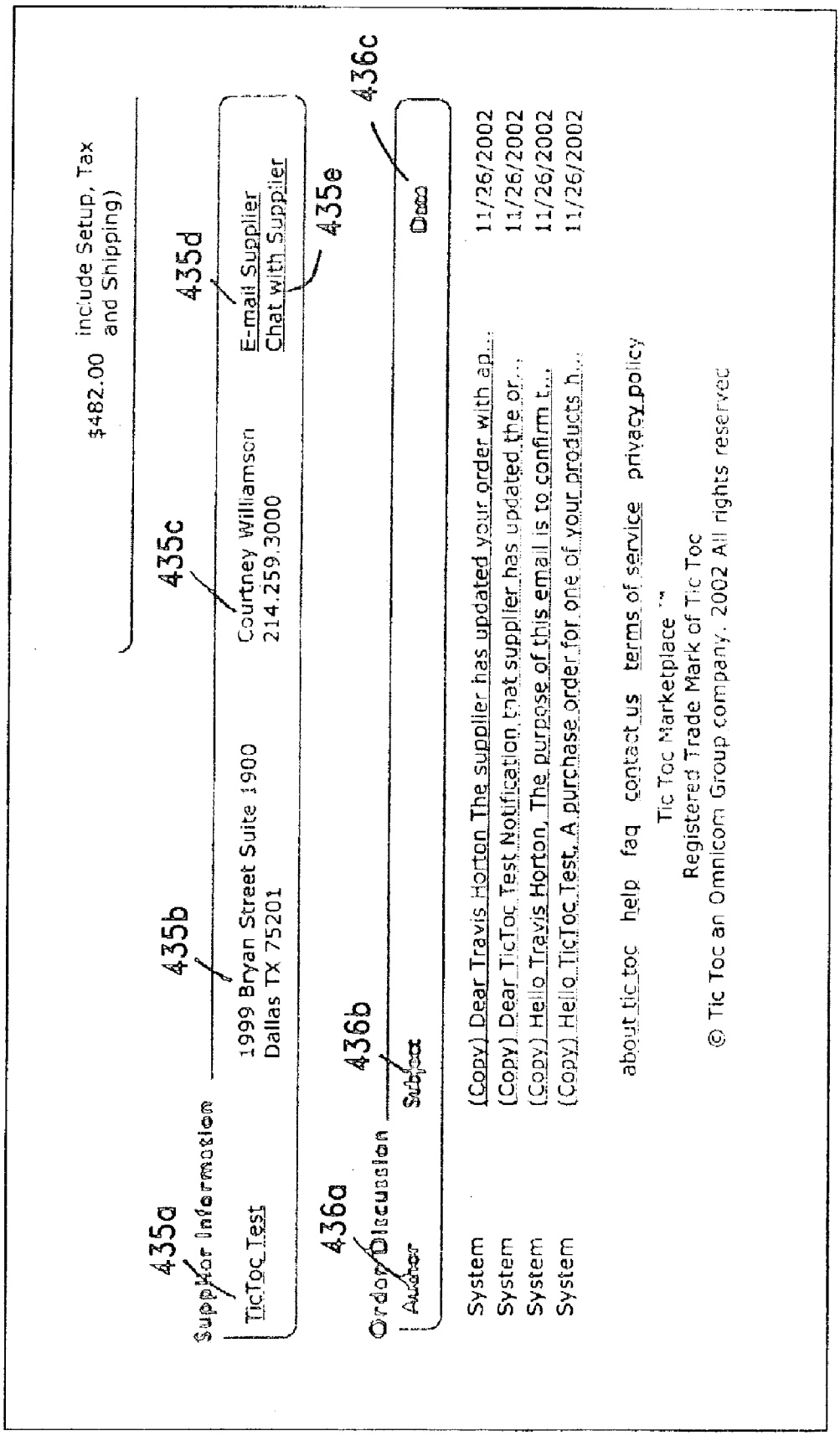
$482.00 include Setup, Tax and Shipping)
435a
435b
435c
435d
435e
436a
436b
436c
Supplier Information
TicToc Test
1999 Bryan Street Suite 1900
Dallas TX 75201
Courtney Williamson
214.259.3000
E-mail Supplier
Chat with Supplier
Order Discussion
Author
Subject
Date
System (Copy) Dear Travis Horton The supplier has updated your order with ap... 11/26/2002
System (Copy) Dear TicToc Test Notification that supplier has updated the or... 11/26/2002
System (Copy) Hello Travis Horton, The purpose of this email is to confirm t... 11/26/2002
System (Copy) Hello TicToc Test, A purchase order for one of your products h... 11/26/2002
about tic toc help faq contact us terms of service privacy policy
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FIG. 30-2

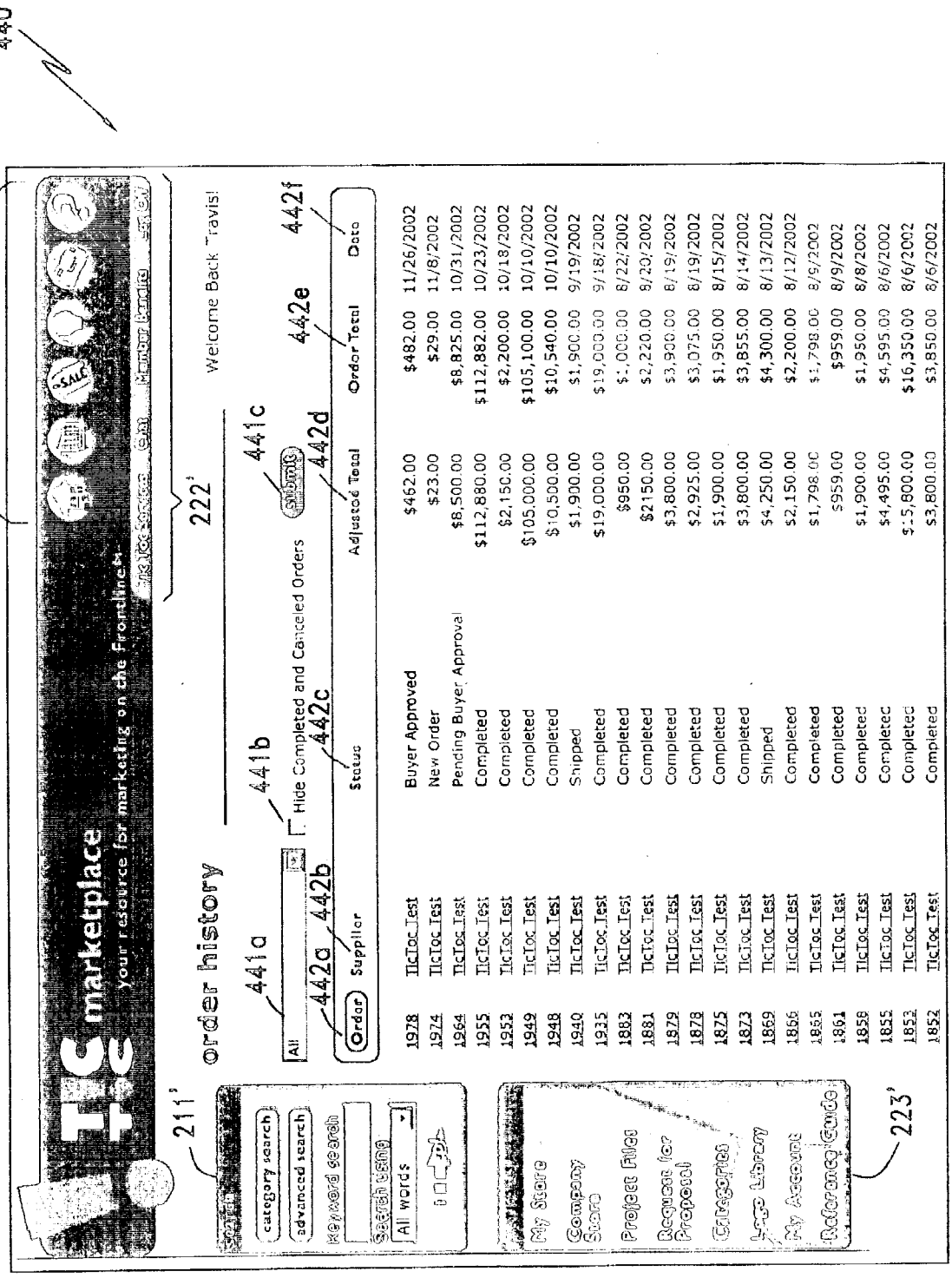

440
221'
211'
222'
223'
441a
441b
441c
442a
442b
442c
442d
442e
442f
order history
Welcome Back Travis!
Hide Completed and Canceled Orders
Order
Supplier
Status
Adjusted Total
Order Total
Date
category search
advanced search
keyword search
search term
All words
My Store
Company Store
Project Files
Request for Proposal
Categories
Your Library
My Account
Information Center

FIG. 3R

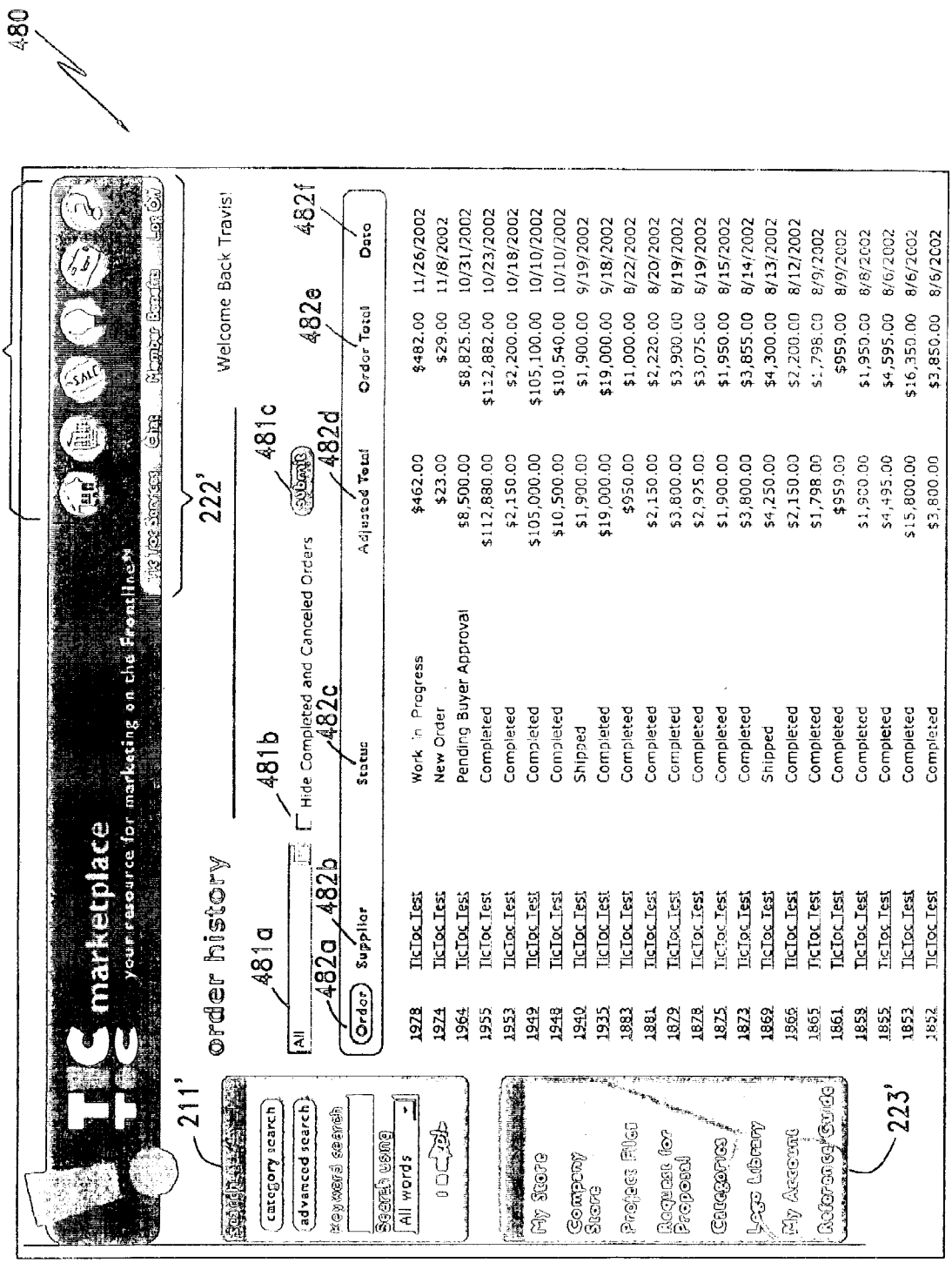
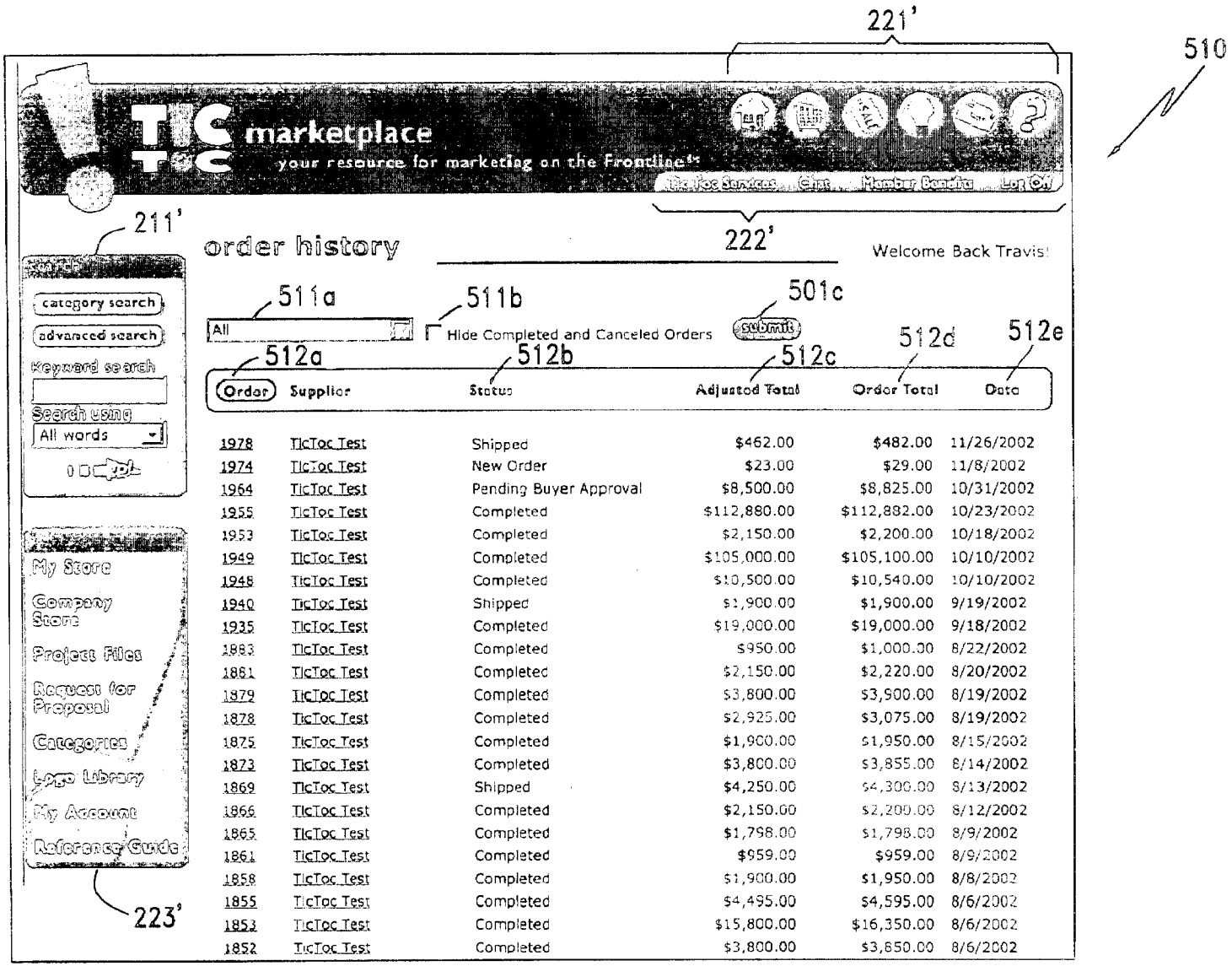

480
221'
211'
222'
223'
481a
481b
481c
482a
482b
482c
482d
482e
482f
TIC marketplace
your resource for marketing on the Frontline
SALE
Welcome Back Travis!
order history
Hide Completed and Canceled Orders
Submit
All
Order
Supplier
Status
Adjusted Total
Order Total
Date
1978 TicToc Test Work in Progress $462.00 $482.00 11/26/2002
1974 TicToc Test New Order $23.00 $29.00 11/8/2002
1964 TicToc Test Pending Buyer Approval $8,500.00 $8,825.00 10/31/2002
1955 TicToc Test Completed $112,880.00 $112,882.00 10/23/2002
1953 TicToc Test Completed $2,150.00 $2,200.00 10/18/2002
1949 TicToc Test Completed $105,000.00 $105,100.00 10/10/2002
1948 TicToc Test Completed $10,500.00 $10,540.00 10/10/2002
1940 TicToc Test Shipped $1,900.00 $1,900.00 9/19/2002
1935 TicToc Test Completed $19,000.00 $19,000.00 9/18/2002
1883 TicToc Test Completed $950.00 $1,000.00 8/22/2002
1881 TicToc Test Completed $2,150.00 $2,220.00 8/20/2002
1879 TicToc Test Completed $3,800.00 $3,900.00 8/19/2002
1878 TicToc Test Completed $2,925.00 $3,075.00 8/19/2002
1875 TicToc Test Completed $1,900.00 $1,950.00 8/15/2002
1873 TicToc Test Completed $3,800.00 $3,855.00 8/14/2002
1869 TicToc Test Shipped $4,250.00 $4,300.00 8/13/2002
1866 TicToc Test Completed $2,150.00 $2,200.00 8/12/2002
1865 TicToc Test Completed $1,798.00 $1,798.00 8/9/2002
1861 TicToc Test Completed $959.00 $959.00 8/9/2002
1858 TicToc Test Completed $1,900.00 $1,950.00 8/8/2002
1855 TicToc Test Completed $4,495.00 $4,595.00 8/6/2002
1853 TicToc Test Completed $15,800.00 $16,350.00 8/6/2002
1852 TicToc Test Completed $3,800.00 $3,850.00 8/6/2002
category search
advanced search
keyword search
Search using
All words
My Store
Company Store
Profiles Filter
Request for Proposal
Categories
Logo Library
My Account
Reference Guide

FIG. 3S

FIG. 3T


221'
510
TIC TOC marketplace
your resource for marketing on the Frontline℠
Tic Toc Services
Chat
Member Benefits
Log Off
222'
211'
order history
Welcome Back Travis!
category search
advanced search
Keyword search
Search using
All words
My Store
Company Store
Project Files
Request for Proposal
Categories
Logo Library
My Account
Reference Guide
223'
511a
All
511b
Hide Completed and Canceled Orders
501c
submit
512a
512b
512c
512d
512e
Order
Supplier
Status
Adjusted Total
Order Total
Date
1978 TicToc Test Shipped $462.00 $482.00 11/26/2002
1974 TicToc Test New Order $23.00 $29.00 11/8/2002
1964 TicToc Test Pending Buyer Approval $8,500.00 $8,825.00 10/31/2002
1955 TicToc Test Completed $112,880.00 $112,882.00 10/23/2002
1953 TicToc Test Completed $2,150.00 $2,200.00 10/18/2002
1949 TicToc Test Completed $105,000.00 $105,100.00 10/10/2002
1948 TicToc Test Completed $10,500.00 $10,540.00 10/10/2002
1940 TicToc Test Shipped $1,900.00 $1,900.00 9/19/2002
1935 TicToc Test Completed $19,000.00 $19,000.00 9/18/2002
1883 TicToc Test Completed $950.00 $1,000.00 8/22/2002
1881 TicToc Test Completed $2,150.00 $2,220.00 8/20/2002
1879 TicToc Test Completed $3,800.00 $3,900.00 8/19/2002
1878 TicToc Test Completed $2,925.00 $3,075.00 8/19/2002
1875 TicToc Test Completed $1,900.00 $1,950.00 8/15/2002
1873 TicToc Test Completed $3,800.00 $3,855.00 8/14/2002
1869 TicToc Test Shipped $4,250.00 $4,300.00 8/13/2002
1866 TicToc Test Completed $2,150.00 $2,200.00 8/12/2002
1865 TicToc Test Completed $1,798.00 $1,798.00 8/9/2002
1861 TicToc Test Completed $959.00 $959.00 8/9/2002
1858 TicToc Test Completed $1,900.00 $1,950.00 8/8/2002
1855 TicToc Test Completed $4,495.00 $4,595.00 8/6/2002
1853 TicToc Test Completed $15,800.00 $16,350.00 8/6/2002
1852 TicToc Test Completed $3,800.00 $3,850.00 8/6/2002

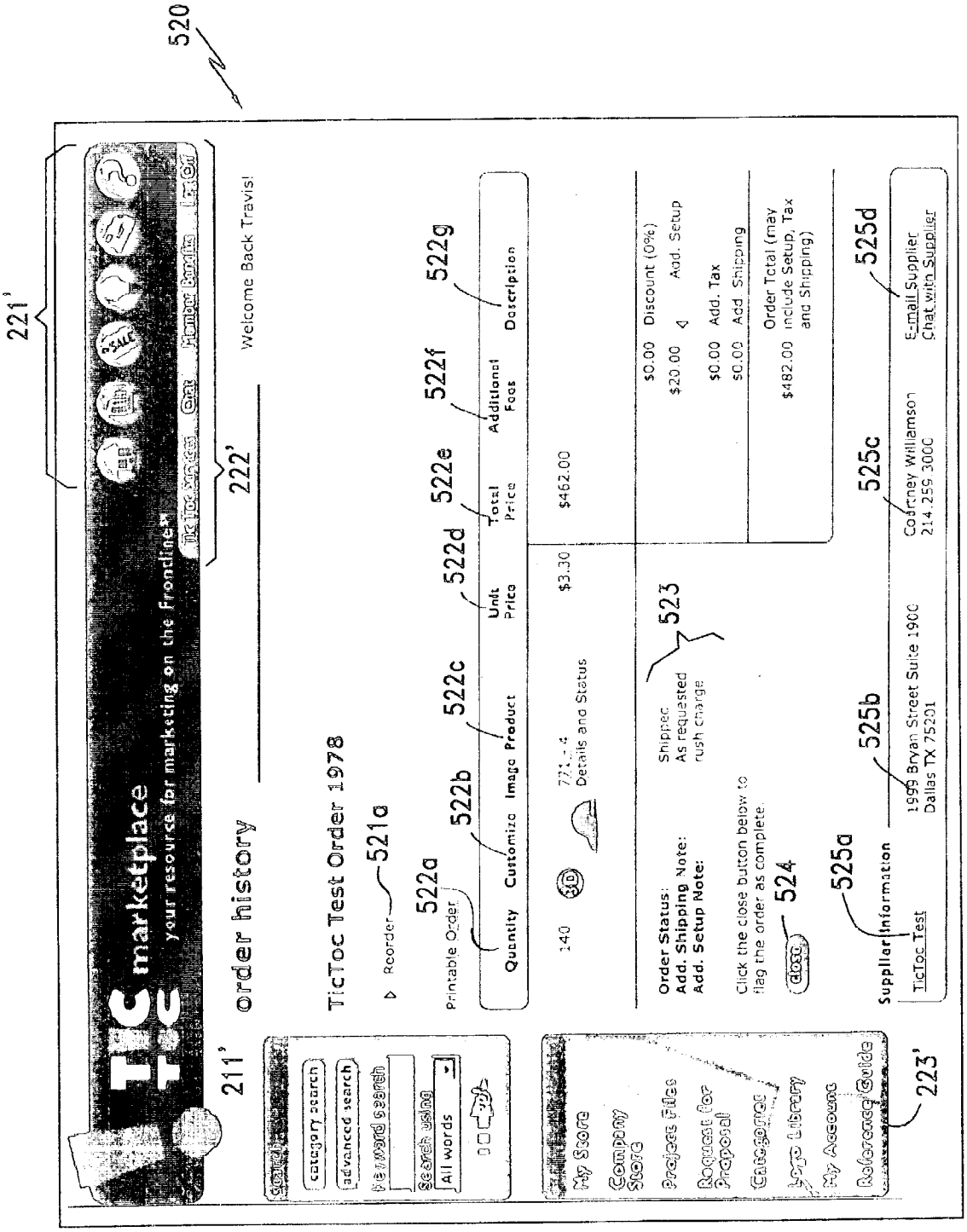

520
221'
211'
222'
223'
order history
Welcome Back Travis!
TicToc Test Order 1978
Reorder
521a
522a
Printable Order
522b
522c
522d
522e
522f
522g
Quantity
Customize
Image
Product
Unit Price
Total Price
Additional Fees
Description
140
$3.30
$462.00
Details and Status
Order Status:
Add. Shipping Note:
Add. Setup Note:
Shipper
As requested
rush charge
523
$0.00 Discount (0%)
$20.00 Add. Setup
$0.00 Add. Tax
$0.00 Add. Shipping
Order Total (may include Setup, Tax and Shipping)
$482.00
Click the close button below to flag the order as complete.
close
524
Supplier Information
525a
525b
525c
525d
TicToc Test
1999 Bryan Street Suite 1900
Dallas TX 75201
Cadney Williamson
214.259.3000
E-mail Supplier
Chat with Supplier
category search
advanced search
keyword search
Search using
All words
My Store
Company Store
Projects Files
Request for Proposal
Categories
Your Library
My Account
Reference Guide

FIG. 3U-1

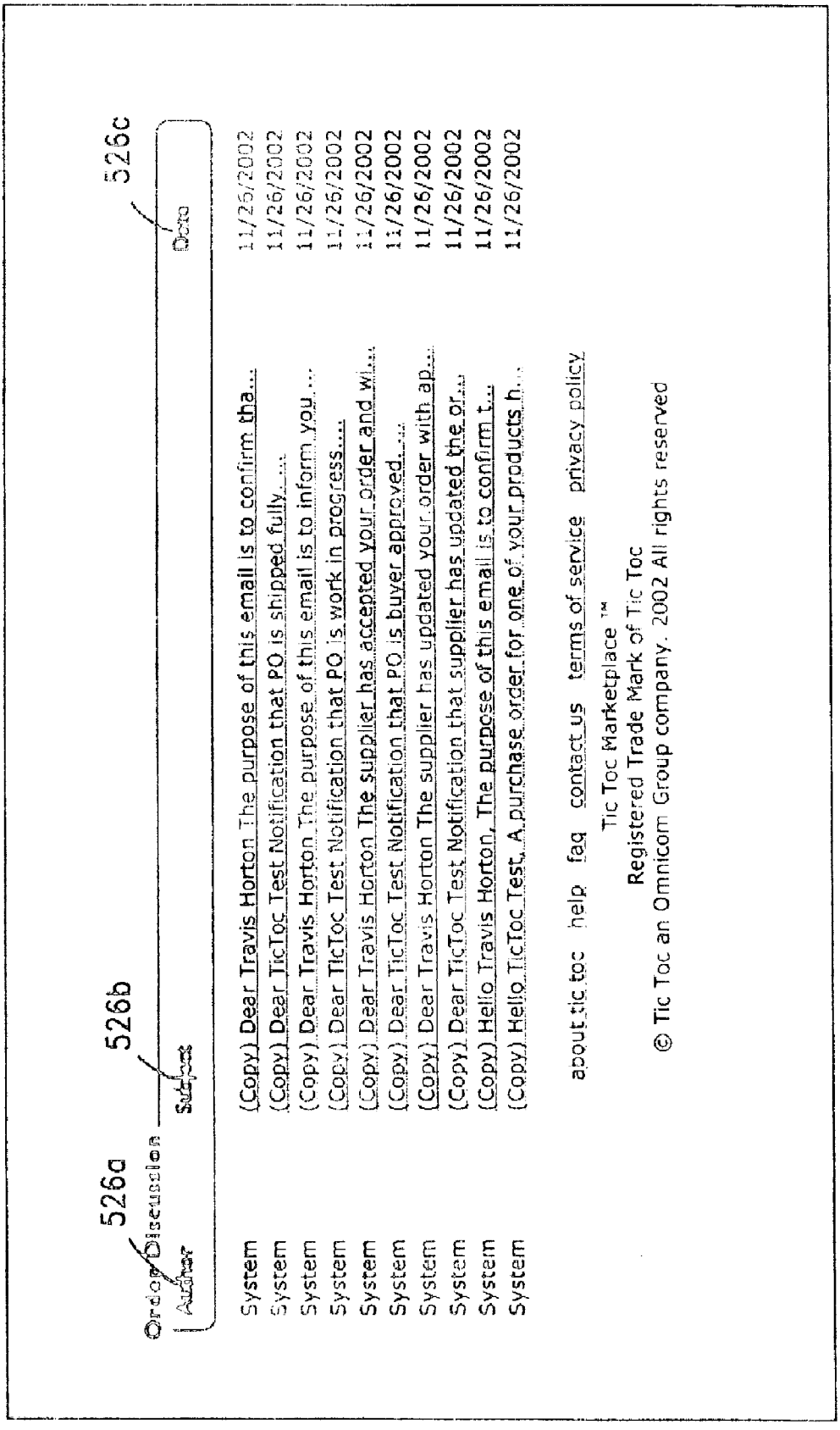

526a
526b
526c
Order Discussion
Author
Subject
Date
System (Copy) Dear Travis Horton The purpose of this email is to confirm tha... 11/26/2002
System (Copy) Dear TicToc Test Notification that PO is shipped fully.... 11/26/2002
System (Copy) Dear Travis Horton The purpose of this email is to inform you.... 11/26/2002
System (Copy) Dear TicToc Test Notification that PO is work in progress.... 11/26/2002
System (Copy) Dear Travis Horton The supplier has accepted your order and wi... 11/26/2002
System (Copy) Dear TicToc Test Notification that PO is buyer approved.... 11/26/2002
System (Copy) Dear Travis Horton The supplier has updated your order with ap... 11/26/2002
System (Copy) Dear TicToc Test Notification that supplier has updated the or... 11/26/2002
System (Copy) Hello Travis Horton, The purpose of this email is to confirm t... 11/26/2002
System (Copy) Hello TicToc Test, A purchase order for one of your products h... 11/26/2002
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FIG. 3U-2

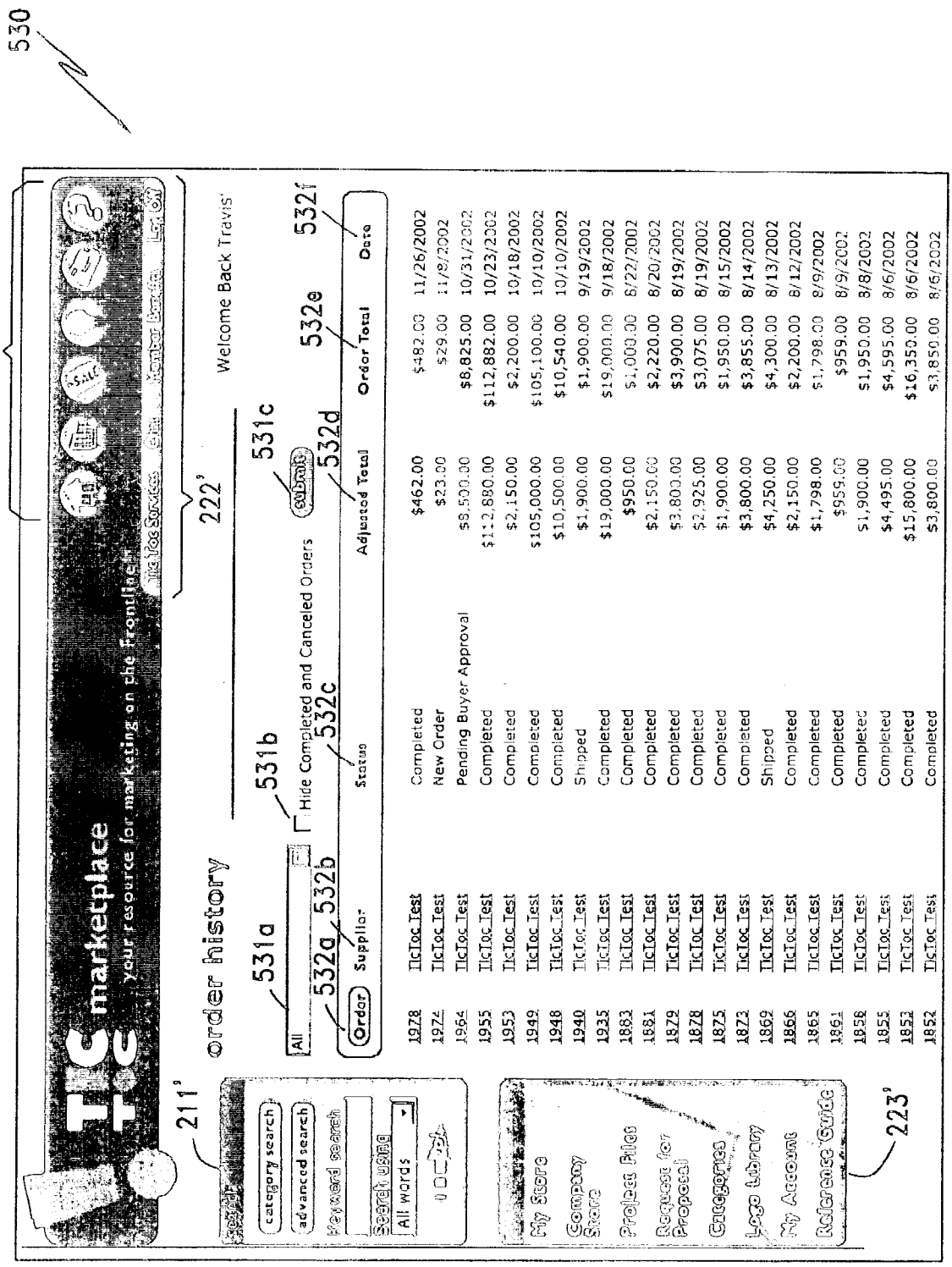

530
221'
211'
223'
222'
order history
Welcome Back Travis!
531a
531b
531c
532a
532b
532c
532d
532e
532f
Hide Completed and Canceled Orders
Submit
Order
Supplier
Status
Adjusted Total
Order Total
Date
category search
advanced search
Keyword search
Search using
All words
Go
My Store
Company Store
Project Plan
Request for Proposal
Categories
Logo Library
My Account
Reference Guide

FIG. 3W

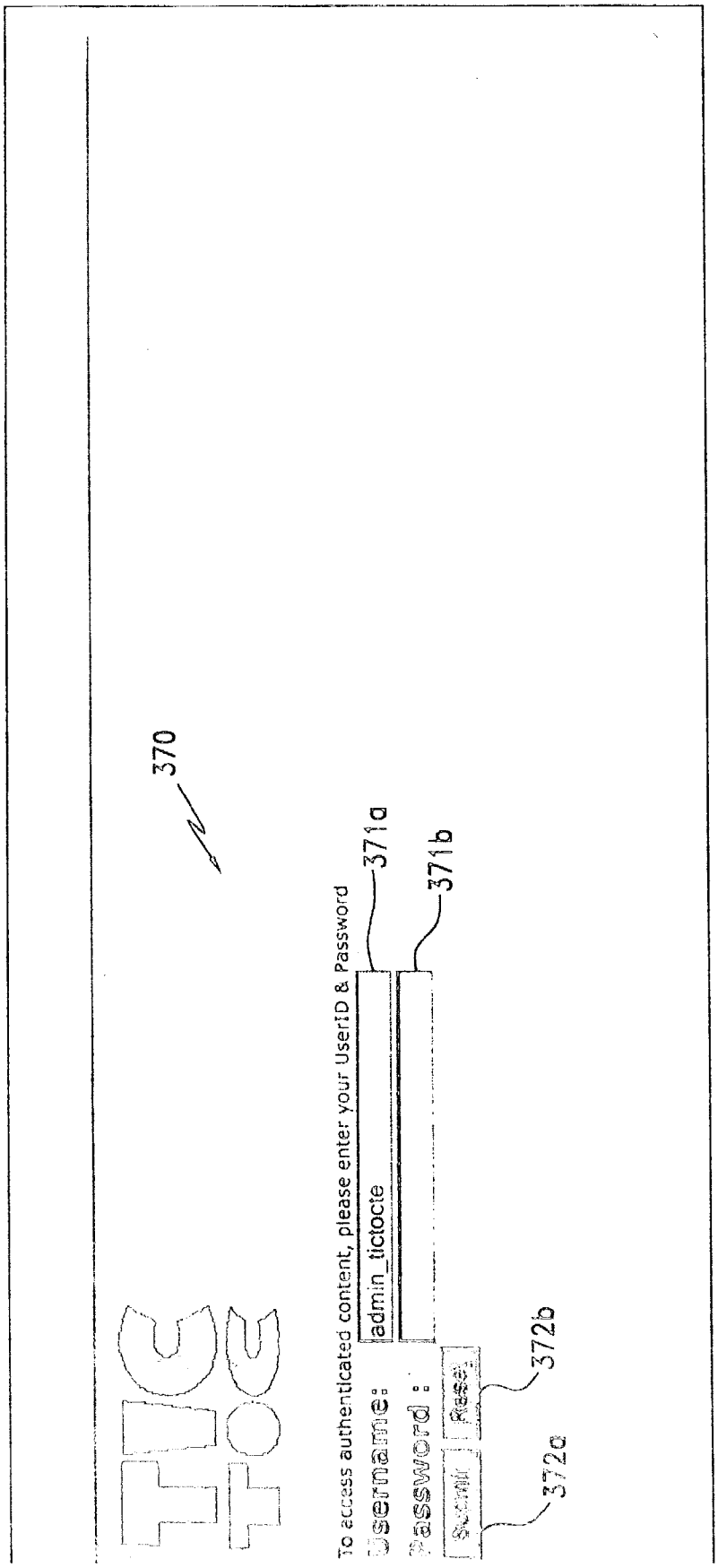

370
371a
371b
372b
372a
To access authenticated content, please enter your UserID & Password
Username:
admin_tictocte
Password :
Reset

FIG. 4A

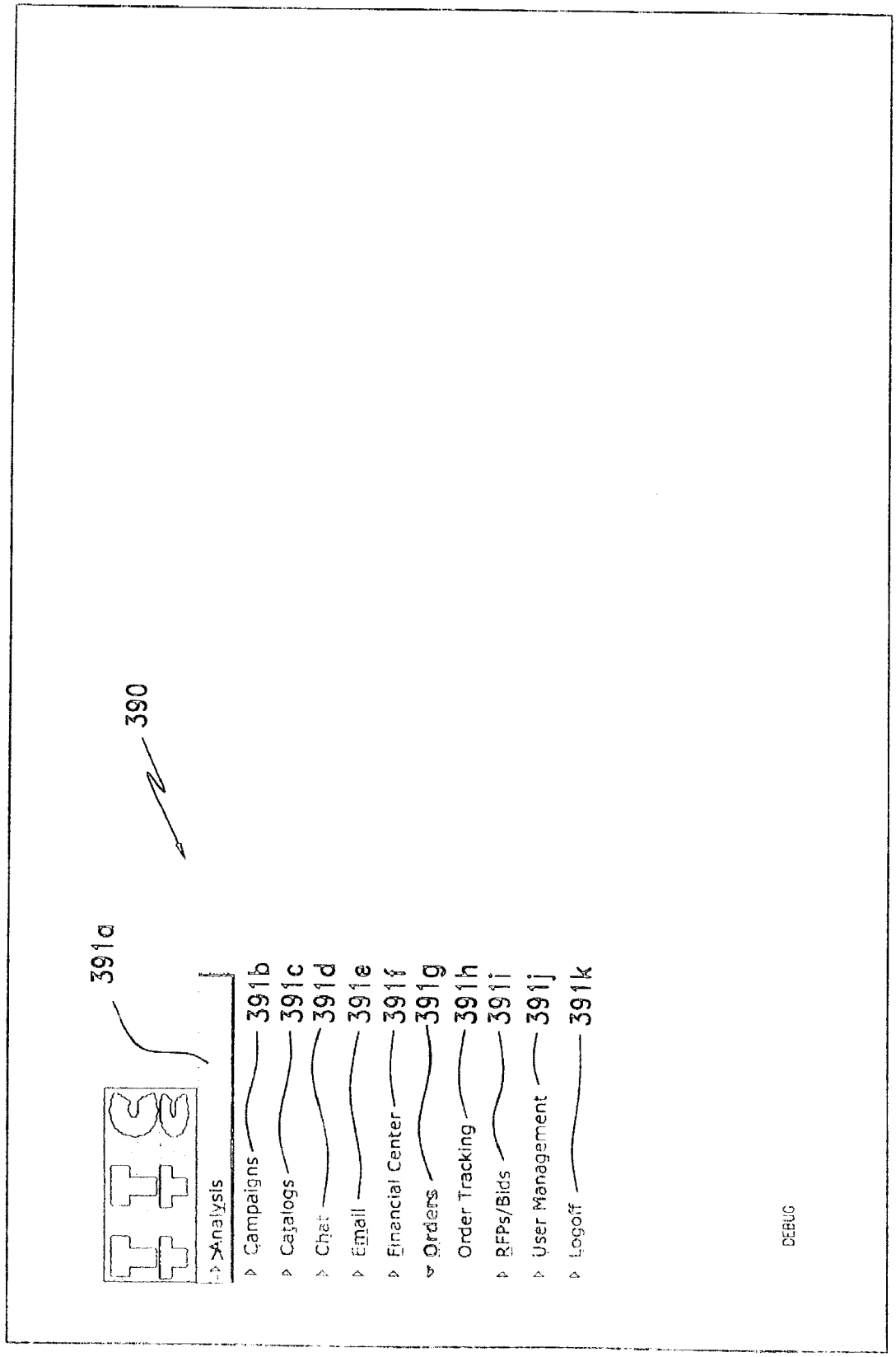

390
391a
Analysis
Campaigns
391b
Catalogs
391c
Chat
391d
Email
391e
Financial Center
391f
Orders
391g
Order Tracking
391h
RFPs/Bids
391i
User Management
391j
Logoff
391k
DEBUG

FIG. 4B

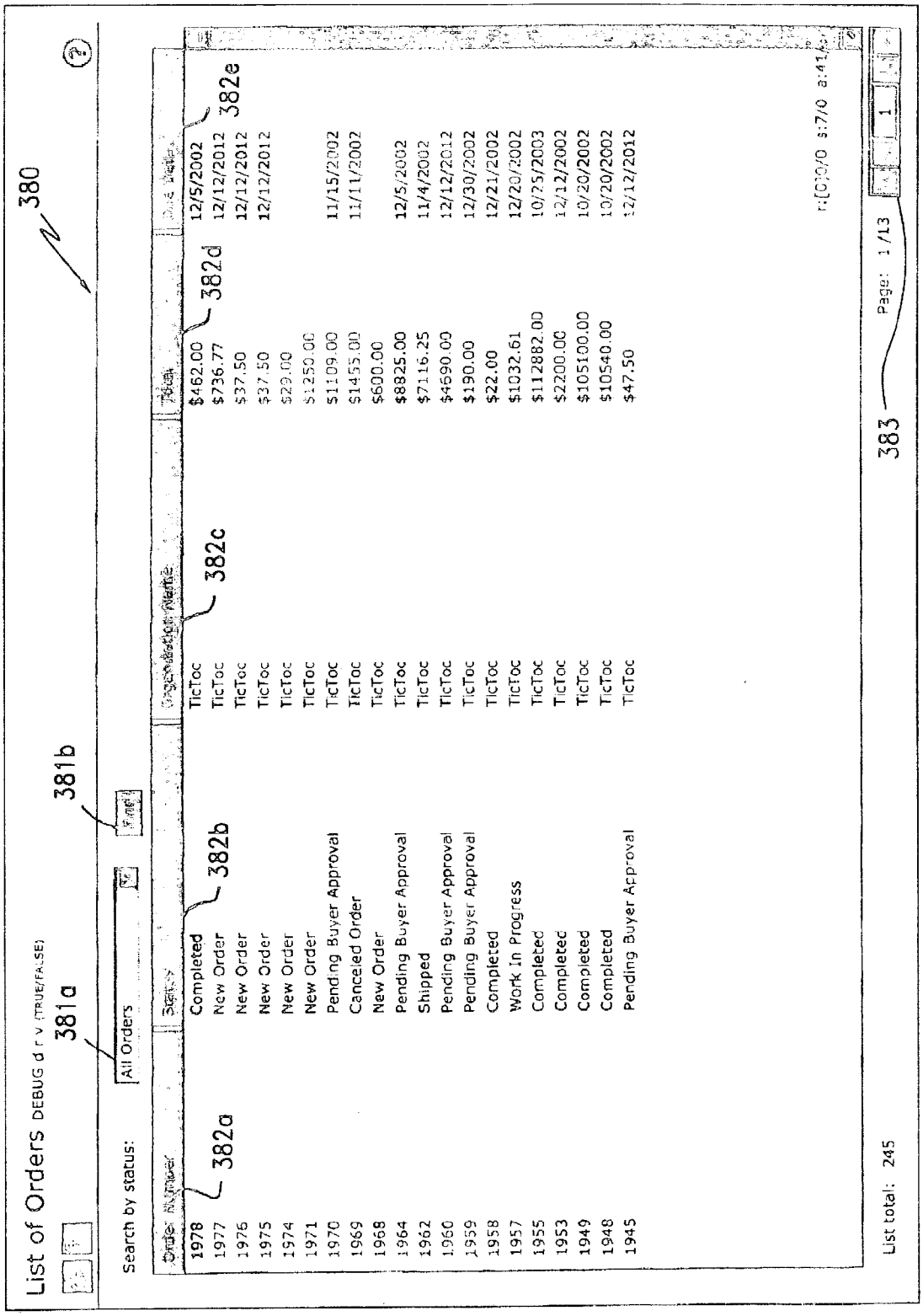

List of Orders DEBUG d r v (TRUE/FALSE)
380
381a
381b
Search by status:
All Orders
Find
Order Number
Status
Organization Name
Total
Due Date
382a
382b
382c
382d
382e
1978 Completed TicToc $462.00 12/5/2002
1977 New Order TicToc $736.77 12/12/2012
1976 New Order TicToc $37.50 12/12/2012
1975 New Order TicToc $37.50 12/12/2012
1974 New Order TicToc $29.00
1971 New Order TicToc $1250.00
1970 Pending Buyer Approval TicToc $1109.00 11/15/2002
1969 Canceled Order TicToc $1455.00 11/11/2002
1968 New Order TicToc $600.00
1964 Pending Buyer Approval TicToc $8825.00 12/5/2002
1962 Shipped TicToc $7116.25 11/4/2002
1960 Pending Buyer Approval TicToc $4690.00 12/12/2012
1959 Pending Buyer Approval TicToc $190.00 12/30/2002
1958 Completed TicToc $22.00 12/21/2002
1957 Work In Progress TicToc $1032.61 12/20/2002
1955 Completed TicToc $112882.00 10/25/2003
1953 Completed TicToc $2200.00 12/12/2002
1949 Completed TicToc $105100.00 10/20/2002
1948 Completed TicToc $10540.00 10/20/2002
1945 Pending Buyer Approval TicToc $47.50 12/12/2012
List total: 245
383
Page: 1 /13

FIG. 4C

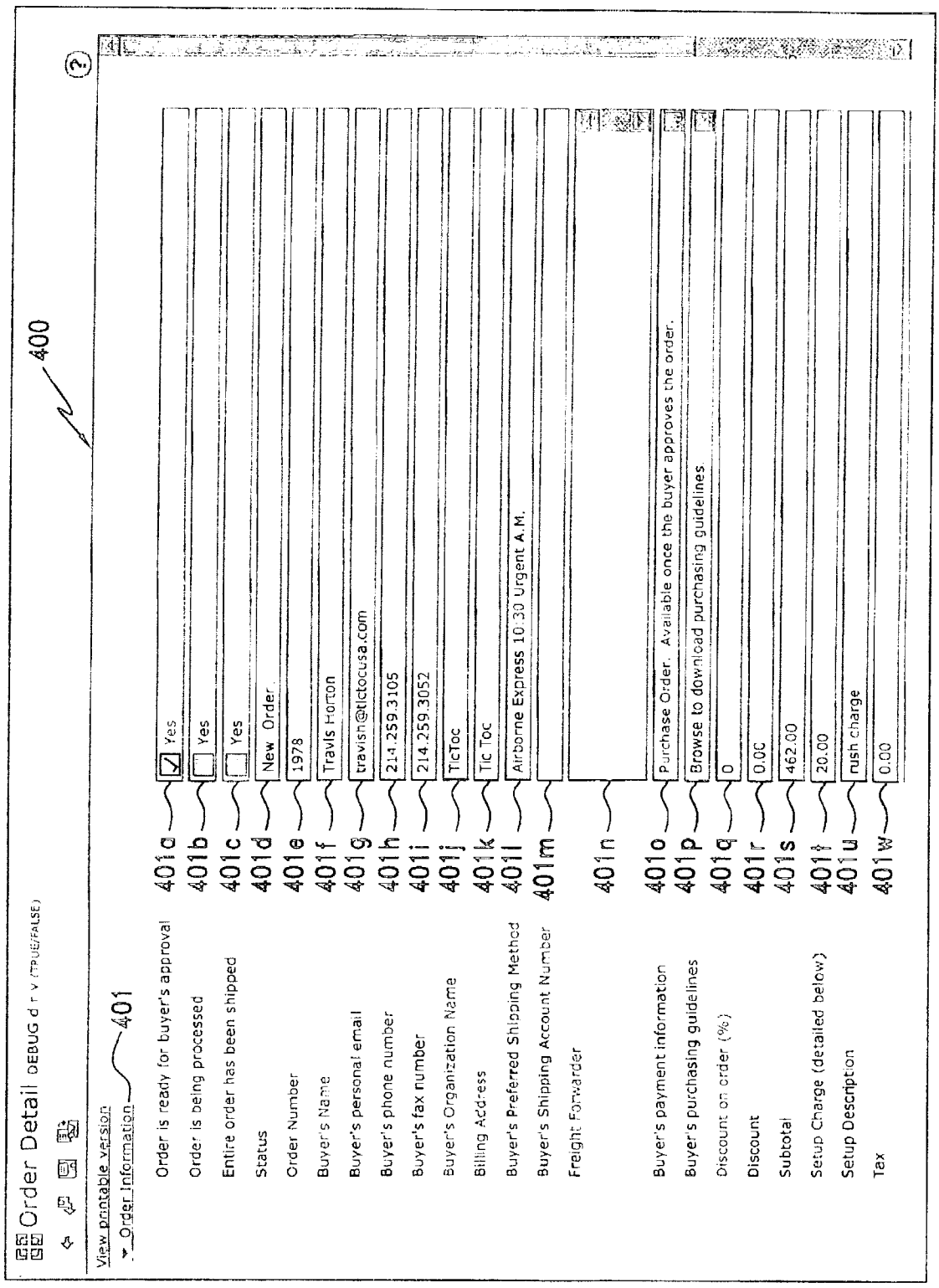

Order Detail DEBUG d r v (TRUE/FALSE)
400
View printable version
401
Order Information
Order is ready for buyer's approval
401a
Yes
Order is being processed
401b
Yes
Entire order has been shipped
401c
Yes
Status
401d
New Order
Order Number
401e
1978
Buyer's Name
401f
Travis Horton
Buyer's personal email
401g
travish@tictocusa.com
Buyer's phone number
401h
214.259.3105
Buyer's fax number
401i
214.259.3052
Buyer's Organization Name
401j
TicToc
Billing Address
401k
Tic Toc
Buyer's Preferred Shipping Method
401l
Airborne Express 10:30 Urgent A.M.
Buyer's Shipping Account Number
401m
Freight Forwarder
401n
Buyer's payment information
401o
Purchase Order. Available once the buyer approves the order.
Buyer's purchasing guidelines
401p
Browse to download purchasing guidelines
Discount on order (%)
401q
0
Discount
401r
0.00
Subtotal
401s
462.00
Setup Charge (detailed below)
401t
20.00
Setup Description
401u
rush charge
Tax
401w
0.00

FIG. 4D

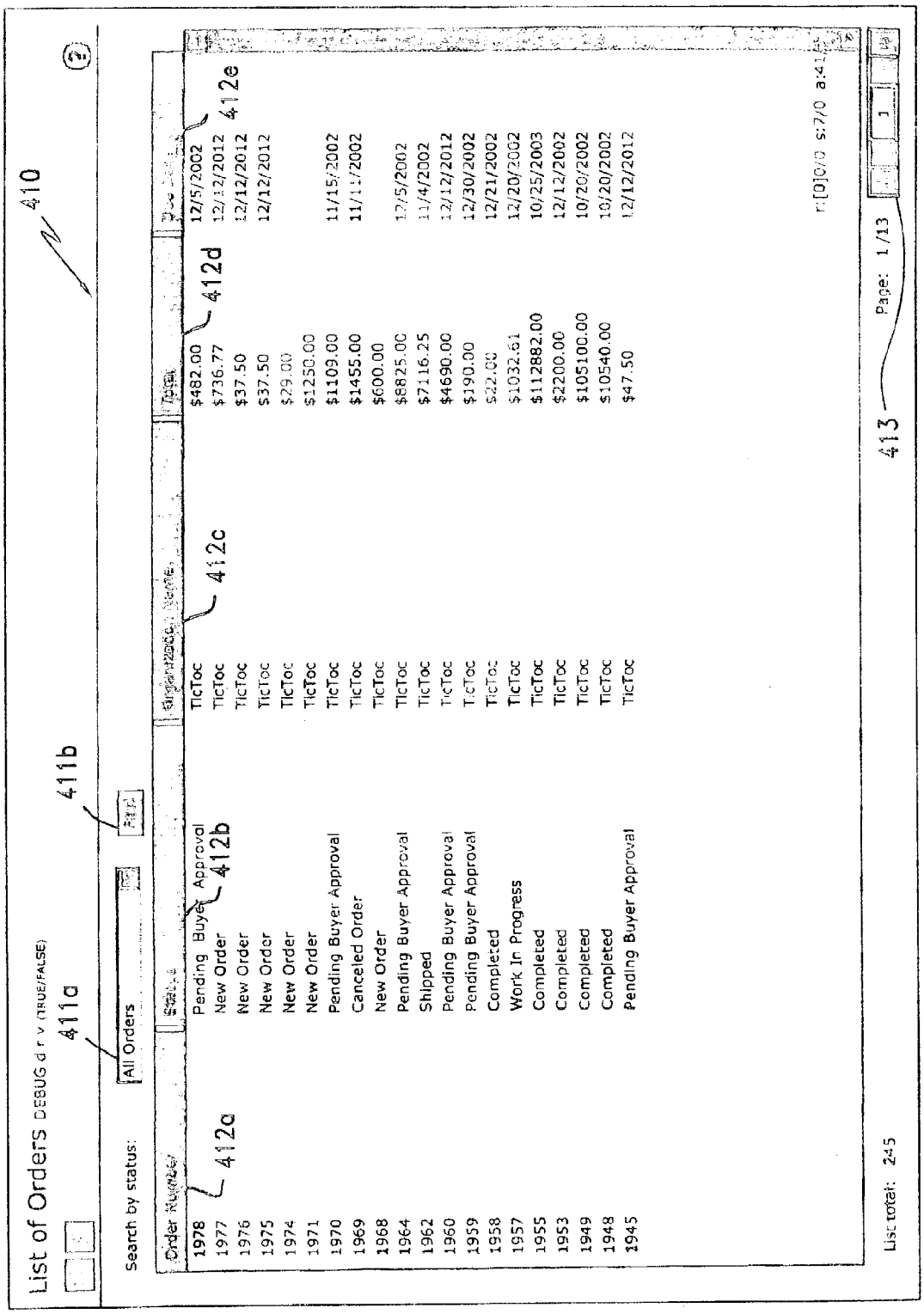

List of Orders DEBUG d r v (TRUE/FALSE)
410
411a
411b
Search by status:
All Orders
Order Number
Status
Customer Name
Total
Date
412a
412b
412c
412d
412e
1978 Pending Buyer Approval TicToc $482.00 12/5/2002
1977 New Order TicToc $736.77 12/12/2012
1976 New Order TicToc $37.50 12/12/2012
1975 New Order TicToc $37.50 12/12/2012
1974 New Order TicToc $29.00
1971 New Order TicToc $1250.00
1970 Pending Buyer Approval TicToc $1109.00 11/15/2002
1969 Canceled Order TicToc $1455.00 11/11/2002
1968 New Order TicToc $600.00
1964 Pending Buyer Approval TicToc $8825.00 12/5/2002
1962 Shipped TicToc $7116.25 11/4/2002
1960 Pending Buyer Approval TicToc $4690.00 12/12/2012
1959 Pending Buyer Approval TicToc $190.00 12/30/2002
1958 Completed TicToc $22.00 12/21/2002
1957 Work In Progress TicToc $1032.61 12/20/2002
1955 Completed TicToc $112882.00 10/25/2003
1953 Completed TicToc $2200.00 12/12/2002
1949 Completed TicToc $105100.00 10/20/2002
1948 Completed TicToc $10540.00 10/20/2002
1945 Pending Buyer Approval TicToc $47.50 12/12/2012
List total: 245
413
Page: 1/13

FIG. 4E

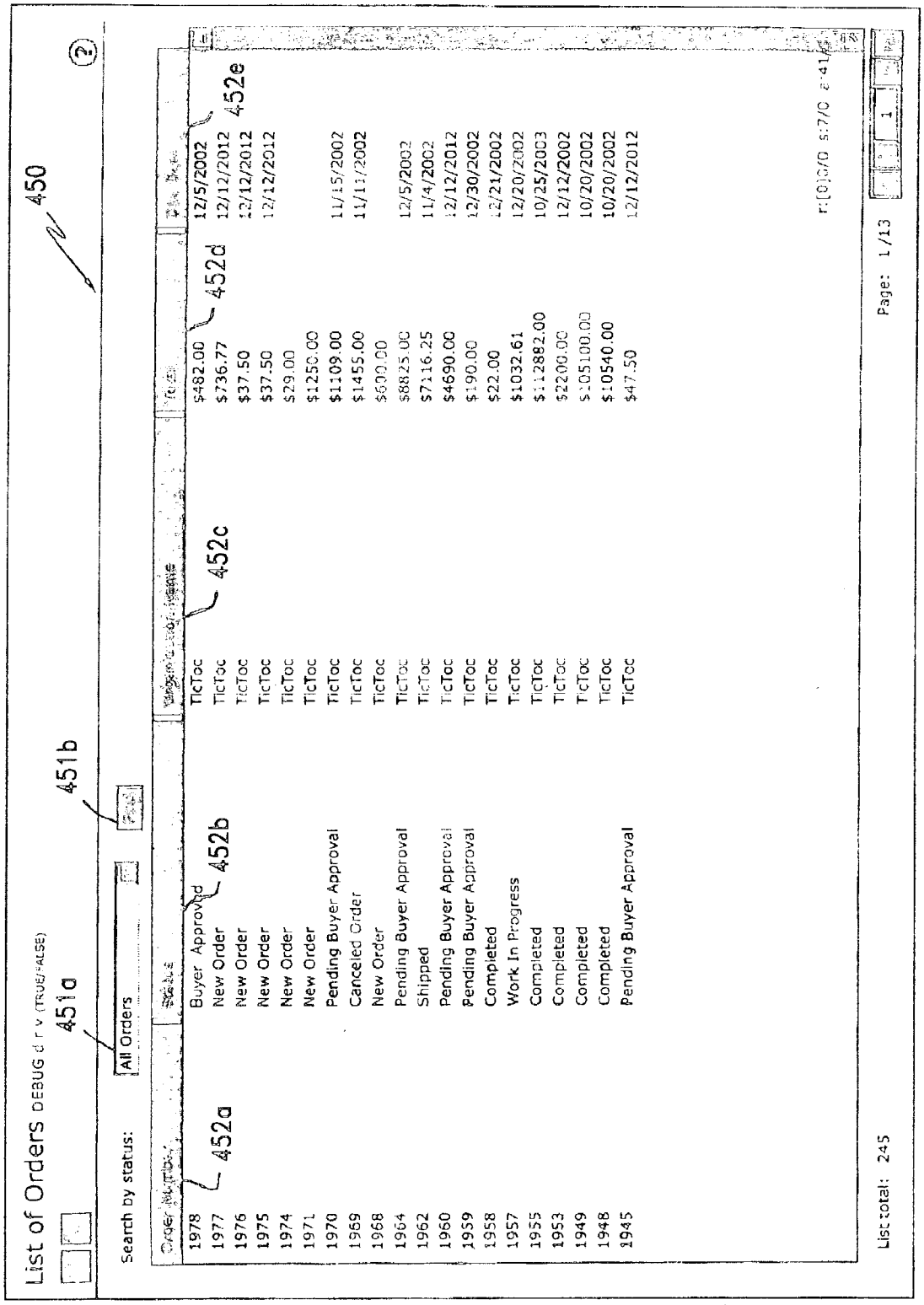

List of Orders DEBUG d r v (TRUE/FALSE)
450
451a
451b
Search by status:
All Orders
452a
452b
452c
452d
452e
1978 Buyer Approved TicToc $482.00 12/5/2002
1977 New Order TicToc $736.77 12/12/2012
1976 New Order TicToc $37.50 12/12/2012
1975 New Order TicToc $37.50 12/12/2012
1974 New Order TicToc $29.00
1971 New Order TicToc $1250.00
1970 Pending Buyer Approval TicToc $1109.00 11/15/2002
1969 Canceled Order TicToc $1455.00 11/11/2002
1968 New Order TicToc $600.00
1964 Pending Buyer Approval TicToc $8825.00 12/5/2002
1962 Shipped TicToc $7116.25 11/4/2002
1960 Pending Buyer Approval TicToc $4690.00 12/12/2012
1959 Pending Buyer Approval TicToc $190.00 12/30/2002
1958 Completed TicToc $22.00 12/21/2002
1957 Work In Progress TicToc $1032.61 12/20/2002
1955 Completed TicToc $112882.00 10/25/2003
1953 Completed TicToc $2200.00 12/12/2002
1949 Completed TicToc $105100.00 10/20/2002
1948 Completed TicToc $10540.00 10/20/2002
1945 Pending Buyer Approval TicToc $47.50 12/12/2012
List total: 245
Page: 1/13

FIG. 4F

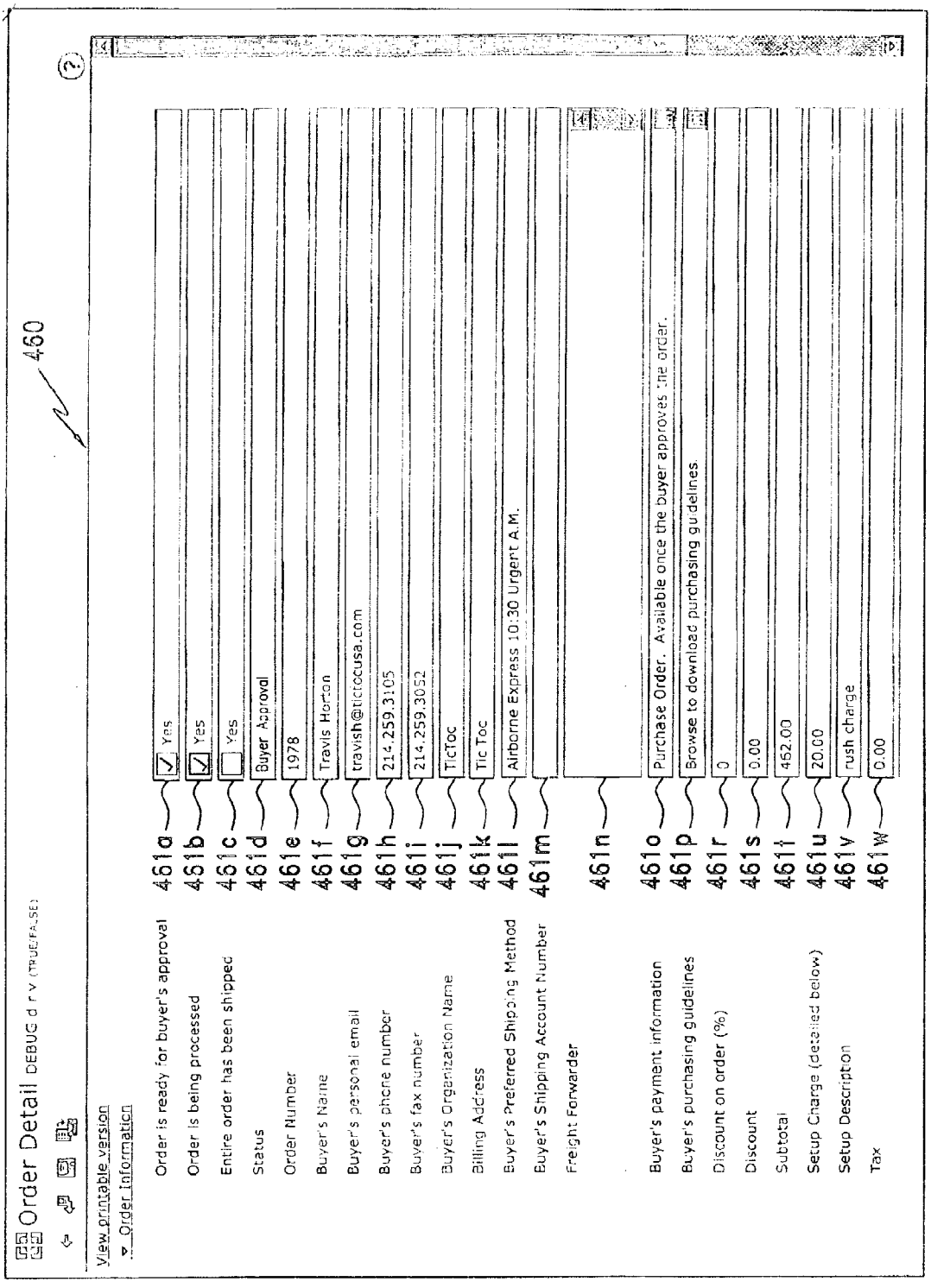
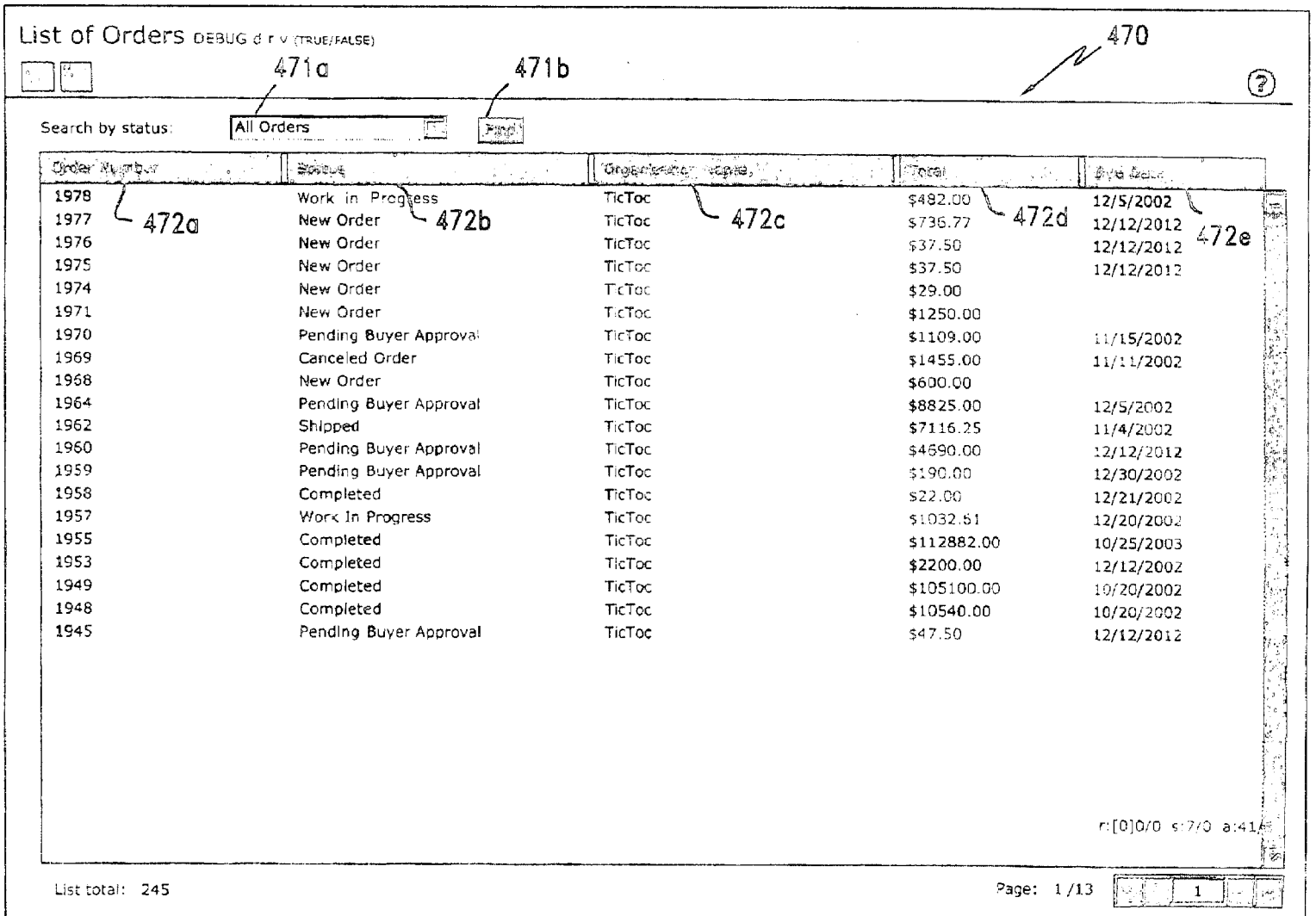
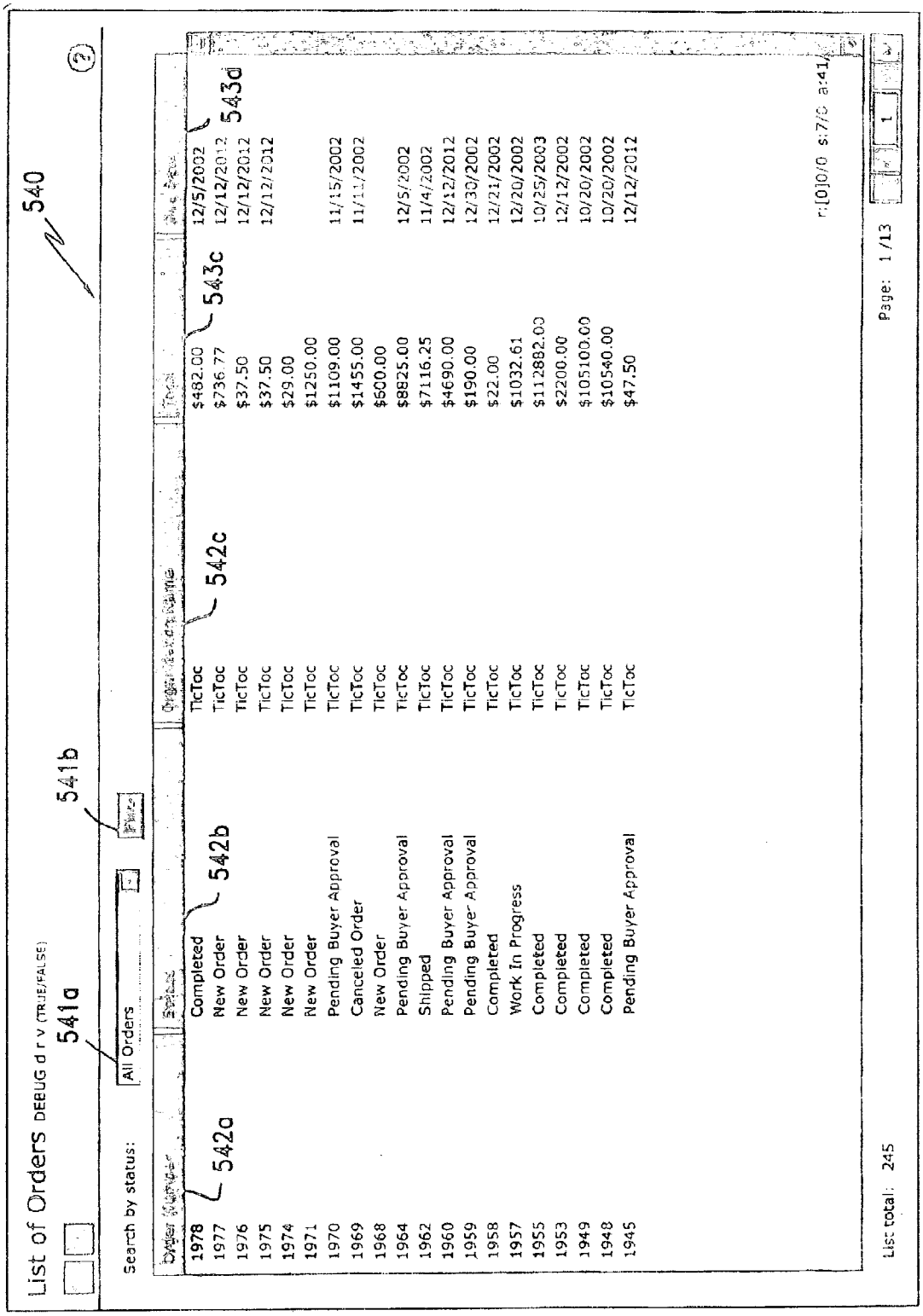

Order Detail DEBUG d r v (TRUE/FALSE)
View printable version
Order Information
460
Order is ready for buyer's approval 461a Yes
Order is being processed 461b Yes
Entire order has been shipped 461c Yes
Status 461d Buyer Approval
Order Number 461e 1978
Buyer's Name 461f Travis Horton
Buyer's personal email 461g travish@tictocusa.com
Buyer's phone number 461h 214.259.3105
Buyer's fax number 461i 214.259.3052
Buyer's Organization Name 461j TicToc
Billing Address 461k Tic Toc
Buyer's Preferred Shipping Method 461l Airborne Express 10:30 Urgent A.M.
Buyer's Shipping Account Number 461m
Freight Forwarder 461n
Buyer's payment information 461o Purchase Order. Available once the Buyer approves the order.
Buyer's purchasing guidelines 461p Browse to download purchasing guidelines.
Discount on order (%) 461r 0
Discount 461s 0.00
Subtotal 461t 452.00
Setup Charge (detailed below) 461u 20.00
Setup Description 461v rush charge
Tax 461w 0.00

FIG. 4G

IG. 4H



Order Number	Status	Organization Name	Total	Due Date
1978	Work in Progress	TicToc	$482.00	12/5/2002
1977	New Order	TicToc	$736.77	12/12/2012
1976	New Order	TicToc	$37.50	12/12/2012
1975	New Order	TicToc	$37.50	12/12/2012
1974	New Order	TicToc	$29.00	
1971	New Order	TicToc	$1250.00	
1970	Pending Buyer Approval	TicToc	$1109.00	11/15/2002
1969	Canceled Order	TicToc	$1455.00	11/11/2002
1968	New Order	TicToc	$600.00	
1964	Pending Buyer Approval	TicToc	$8825.00	12/5/2002
1962	Shipped	TicToc	$7116.25	11/4/2002
1960	Pending Buyer Approval	TicToc	$4690.00	12/12/2012
1959	Pending Buyer Approval	TicToc	$190.00	12/30/2002
1958	Completed	TicToc	$22.00	12/21/2002
1957	Work In Progress	TicToc	$1032.61	12/20/2002
1955	Completed	TicToc	$112882.00	10/25/2003
1953	Completed	TicToc	$2200.00	12/12/2002
1949	Completed	TicToc	$105100.00	10/20/2002
1948	Completed	TicToc	$10540.00	10/20/2002
1945	Pending Buyer Approval	TicToc	$47.50	12/12/2012


List of Orders DEBUG d r v (TRUE/FALSE)
540
541a
541b
Search by status:
All Orders
542a
542b
542c
543c
543d
1978 Completed TicToc $482.00 12/5/2002
1977 New Order TicToc $736.77 12/12/2012
1976 New Order TicToc $37.50 12/12/2012
1975 New Order TicToc $37.50 12/12/2012
1974 New Order TicToc $29.00
1971 New Order TicToc $1250.00
1970 Pending Buyer Approval TicToc $1109.00 11/15/2002
1969 Canceled Order TicToc $1455.00 11/11/2002
1968 New Order TicToc $600.00
1964 Pending Buyer Approval TicToc $8825.00 12/5/2002
1962 Shipped TicToc $7116.25 11/4/2002
1960 Pending Buyer Approval TicToc $4690.00 12/12/2012
1959 Pending Buyer Approval TicToc $190.00 12/30/2002
1958 Completed TicToc $22.00 12/21/2002
1957 Work In Progress TicToc $1032.61 12/20/2002
1955 Completed TicToc $112882.00 10/25/2003
1953 Completed TicToc $2200.00 12/12/2002
1949 Completed TicToc $105100.00 10/20/2002
1948 Completed TicToc $10540.00 10/20/2002
1945 Pending Buyer Approval TicToc $47.50 12/12/2012
List total: 245
Page: 1 /13

G. 4I-1

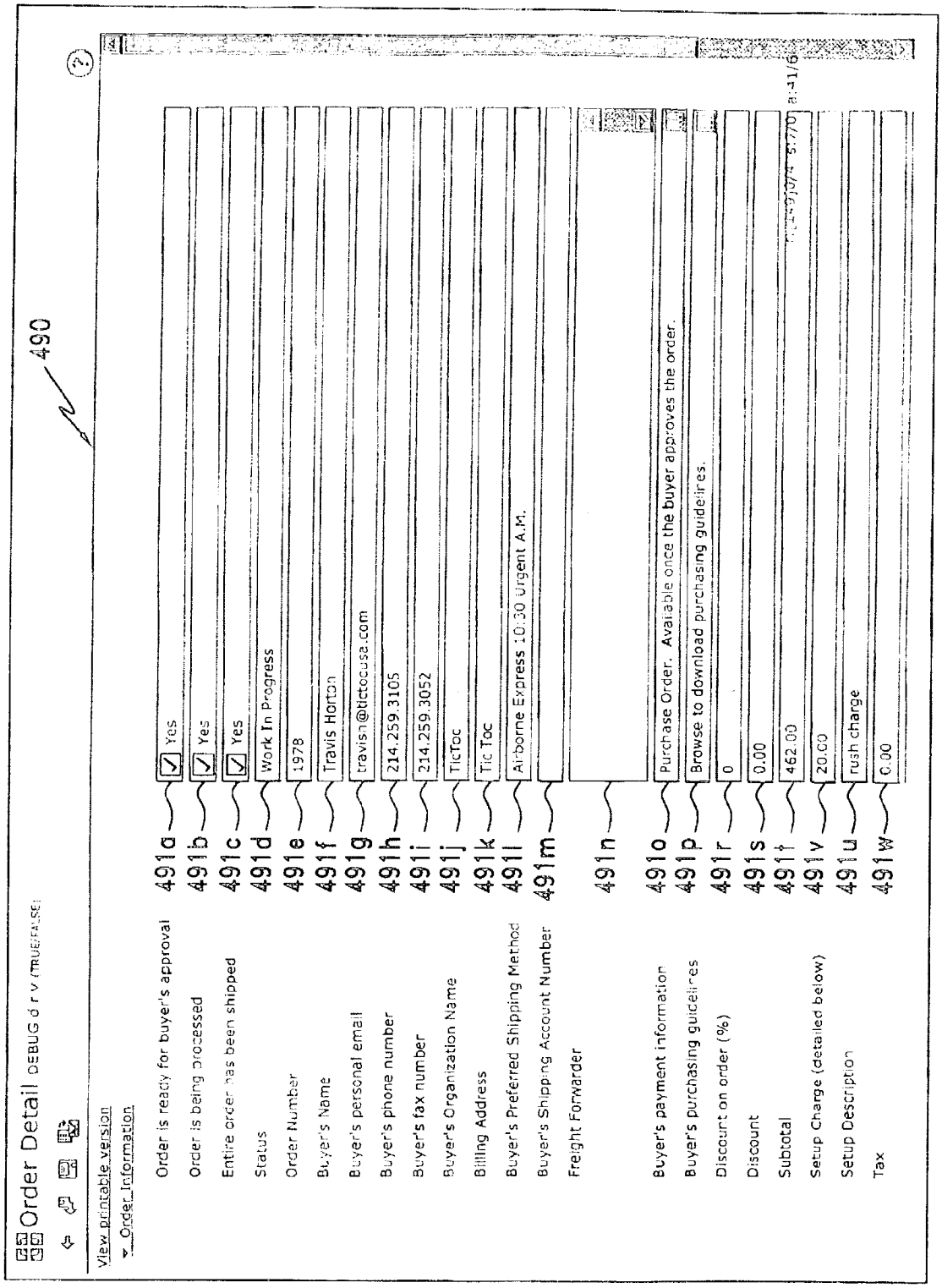
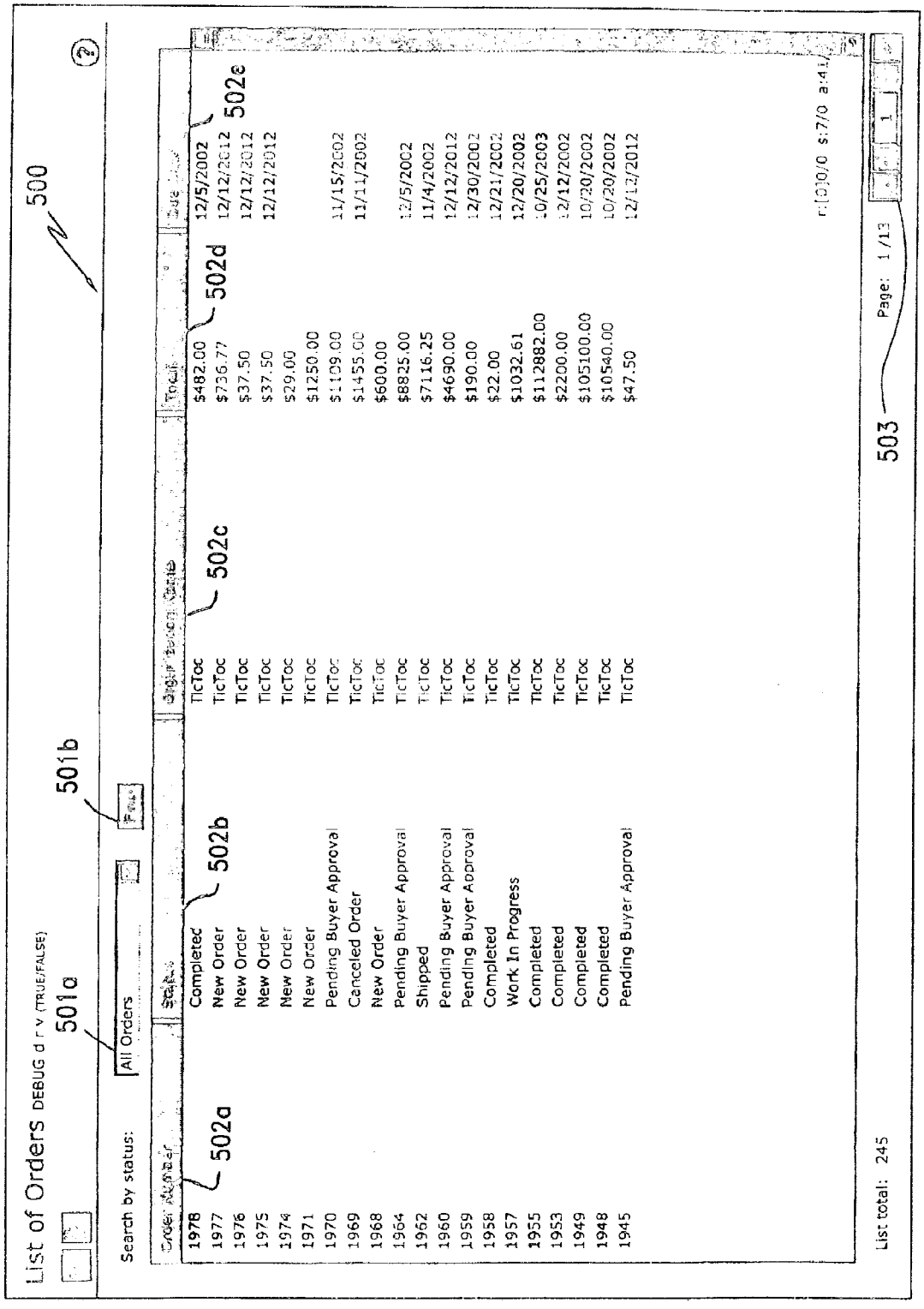

Order Detail
View printable version
Order Information
490
Order is ready for buyer's approval
Order is being processed
Entire order has been shipped
Status
Order Number
Buyer's Name
Buyer's personal email
Buyer's phone number
Buyer's fax number
Buyer's Organization Name
Billing Address
Buyer's Preferred Shipping Method
Buyer's Shipping Account Number
Freight Forwarder
Buyer's payment information
Buyer's purchasing guidelines
Discount on order (%)
Discount
Subtotal
Setup Charge (detailed below)
Setup Description
Tax
491a
491b
491c
491d
491e
491f
491g
491h
491i
491j
491k
491l
491m
491n
491o
491p
491r
491s
491t
491v
491u
491w
Yes
Yes
Yes
Work In Progress
1978
Travis Horton
travish@tictocusa.com
214.259.3105
214.259.3052
TicToc
Tic Toc
Airborne Express 10:30 Urgent A.M.
Purchase Order. Available once the buyer approves the order.
Browse to download purchasing guidelines.
0
0.00
462.00
20.00
rush charge
0.00

FIG. 41-2


List of Orders DEBUG d r v (TRUE/FALSE)
500
501a
501b
Search by status:
All Orders
Order Number
Status
Order Action Name
Total
Due Date
502a
502b
502c
502d
502e
1978 Completed TicToc $482.00 12/5/2002
1977 New Order TicToc $736.77 12/12/2012
1976 New Order TicToc $37.50 12/12/2012
1975 New Order TicToc $37.50 12/12/2012
1974 New Order TicToc $29.00
1971 New Order TicToc $1250.00
1970 Pending Buyer Approval TicToc $1109.00 11/15/2002
1969 Canceled Order TicToc $1455.00 11/11/2002
1968 New Order TicToc $600.00
1964 Pending Buyer Approval TicToc $8825.00 12/5/2002
1962 Shipped TicToc $7116.25 11/4/2002
1960 Pending Buyer Approval TicToc $4690.00 12/12/2012
1959 Pending Buyer Approval TicToc $190.00 12/30/2002
1958 Completed TicToc $22.00 12/21/2002
1957 Work In Progress TicToc $1032.61 12/20/2002
1955 Completed TicToc $112882.00 10/25/2003
1953 Completed TicToc $2200.00 12/12/2002
1949 Completed TicToc $105100.00 10/20/2002
1948 Completed TicToc $10540.00 10/20/2002
1945 Pending Buyer Approval TicToc $47.50 12/12/2012
r:[0]0/0 s:7/0 a:41/
List total: 245
Page: 1/13
503

IG. 4J

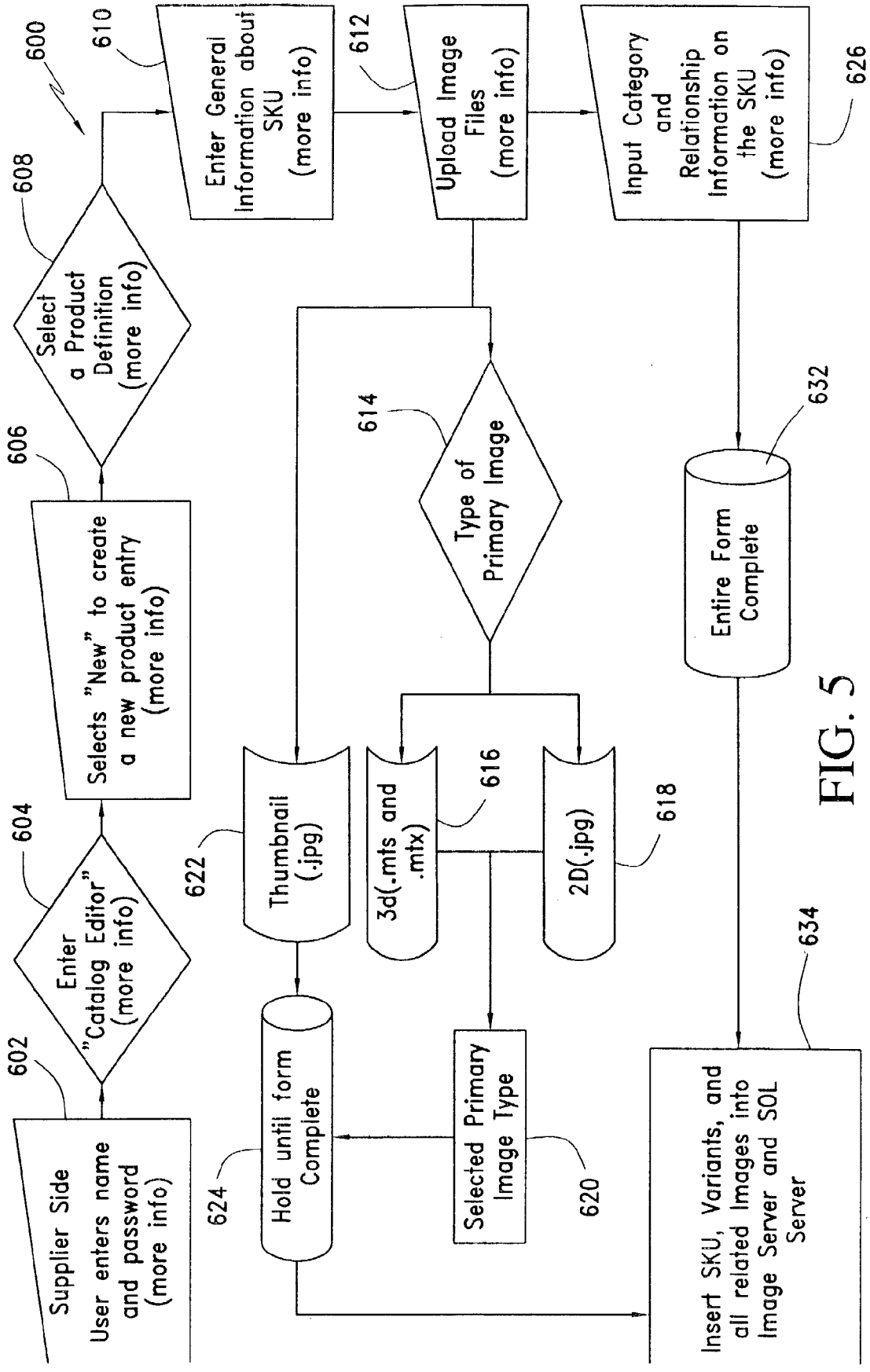

600
602
Supplier Side
User enters name and password (more info)
604
Enter "Catalog Editor" (more info)
606
Selects "New" to create a new product entry (more info)
608
Select a Product Definition (more info)
610
Enter General Information about SKU (more info)
612
Upload Image Files (more info)
614
Type of Primary Image
616
618
622
Thumbnail (.jpg)
3d(.mts and .mtx)
2D(.jpg)
624
Hold until form Complete
620
Selected Primary Image Type
626
Input Category and Relationship Information on the SKU (more info)
632
Entire Form Complete
634
Insert SKU, Variants, and all related Images into Image Server and SOL Server

FIG. 5

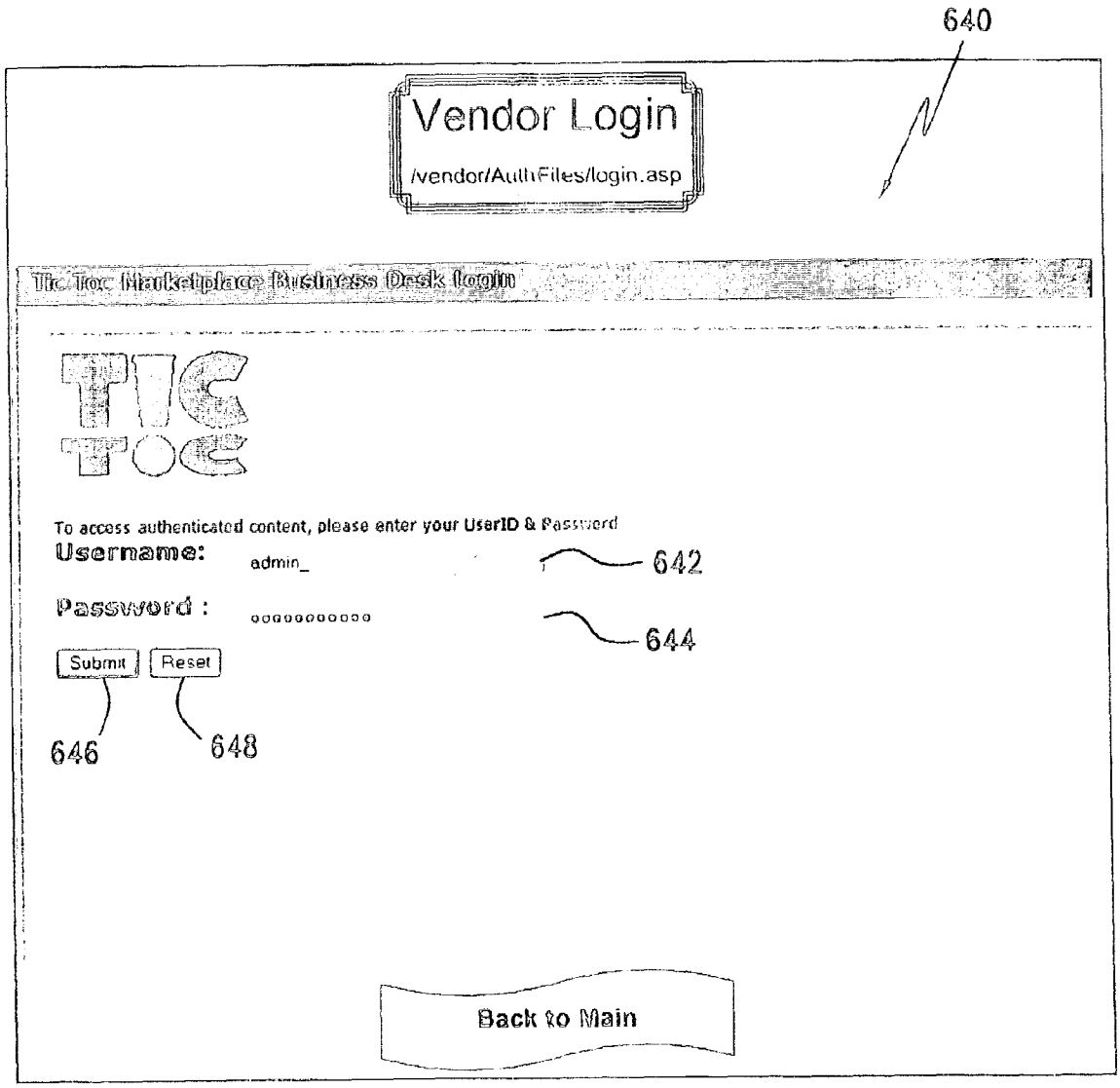

640
Vendor Login
/vendor/AuthFiles/login.asp
Tic Toc Marketplace Business Desk login
TIC
TOC
To access authenticated content, please enter your UserID & Password
Username:
admin_
642
Password :
644
Submit
Reset
646
648
Back to Main

FIG. 6A

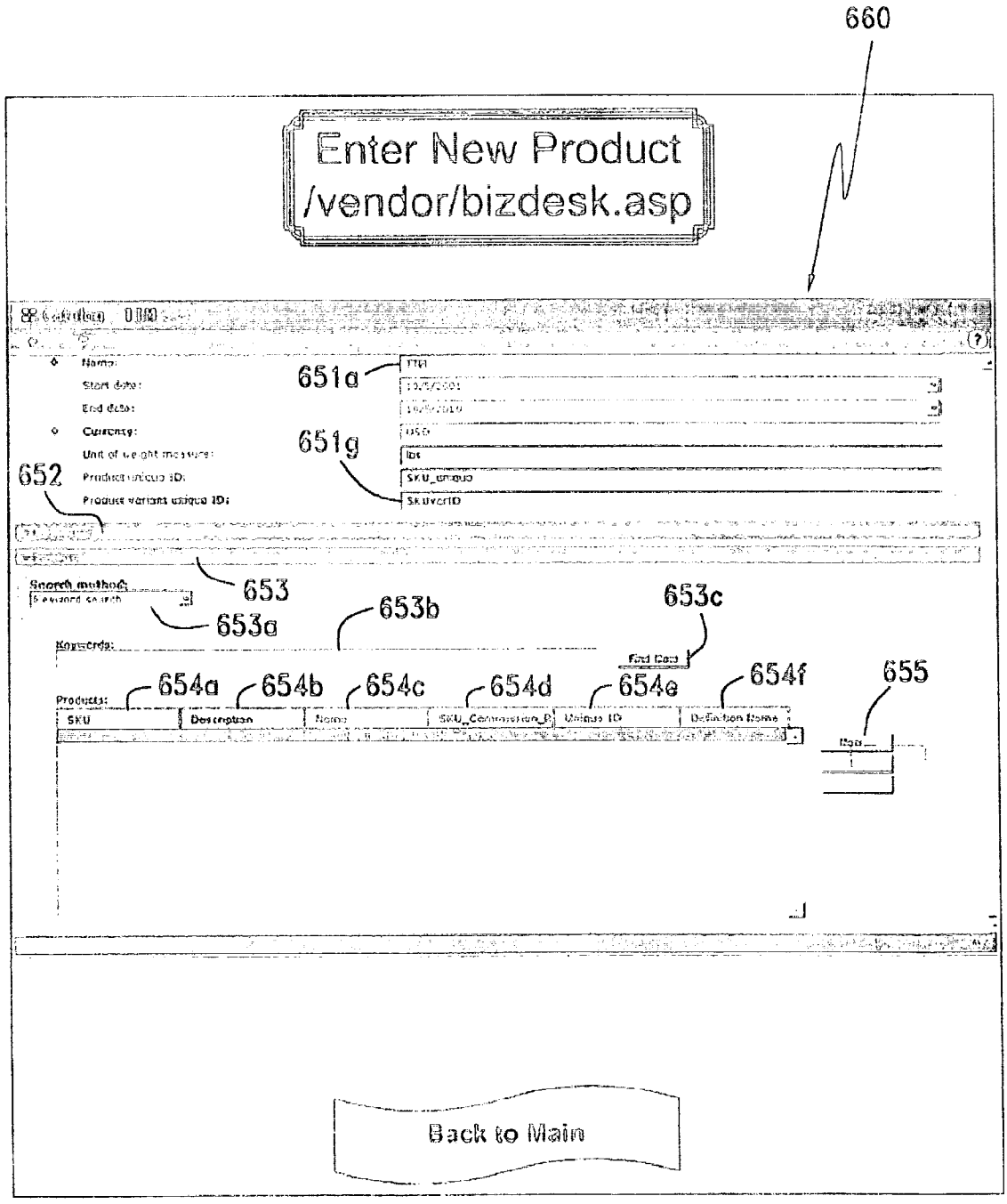

660
Enter New Product
/vendor/bizdesk.asp
651a
651g
652
653
653a
653b
653c
654a
654b
654c
654d
654e
654f
655
Back to Main

FIG. 6B

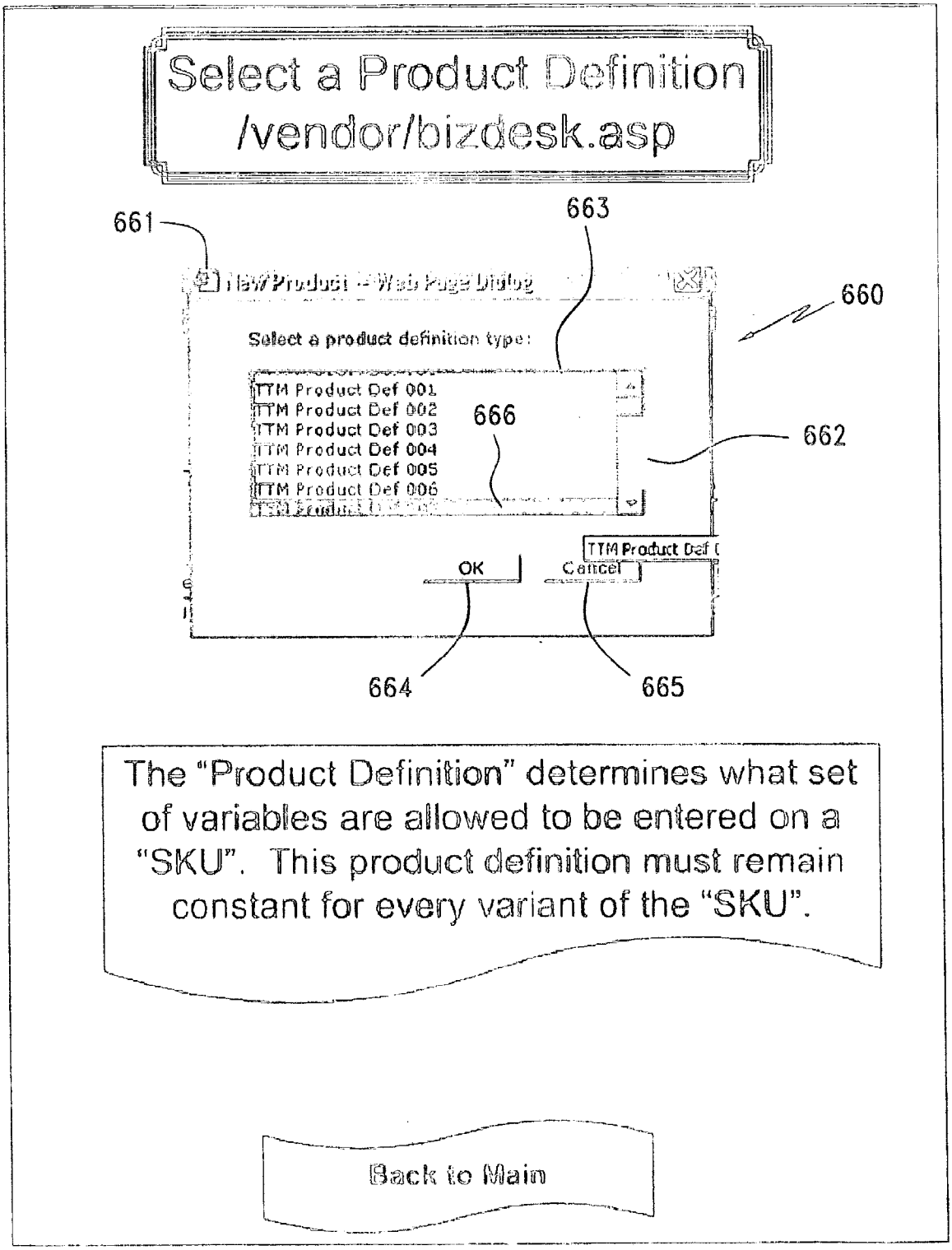

Select a Product Definition
/vendor/bizdesk.asp
661
663
660
662
666
664
665
Select a product definition type:
TTM Product Def 001
TTM Product Def 002
TTM Product Def 003
TTM Product Def 004
TTM Product Def 005
TTM Product Def 006
OK
Cancel
The "Product Definition" determines what set of variables are allowed to be entered on a "SKU". This product definition must remain constant for every variant of the "SKU".
Back to Main

FIG. 6C

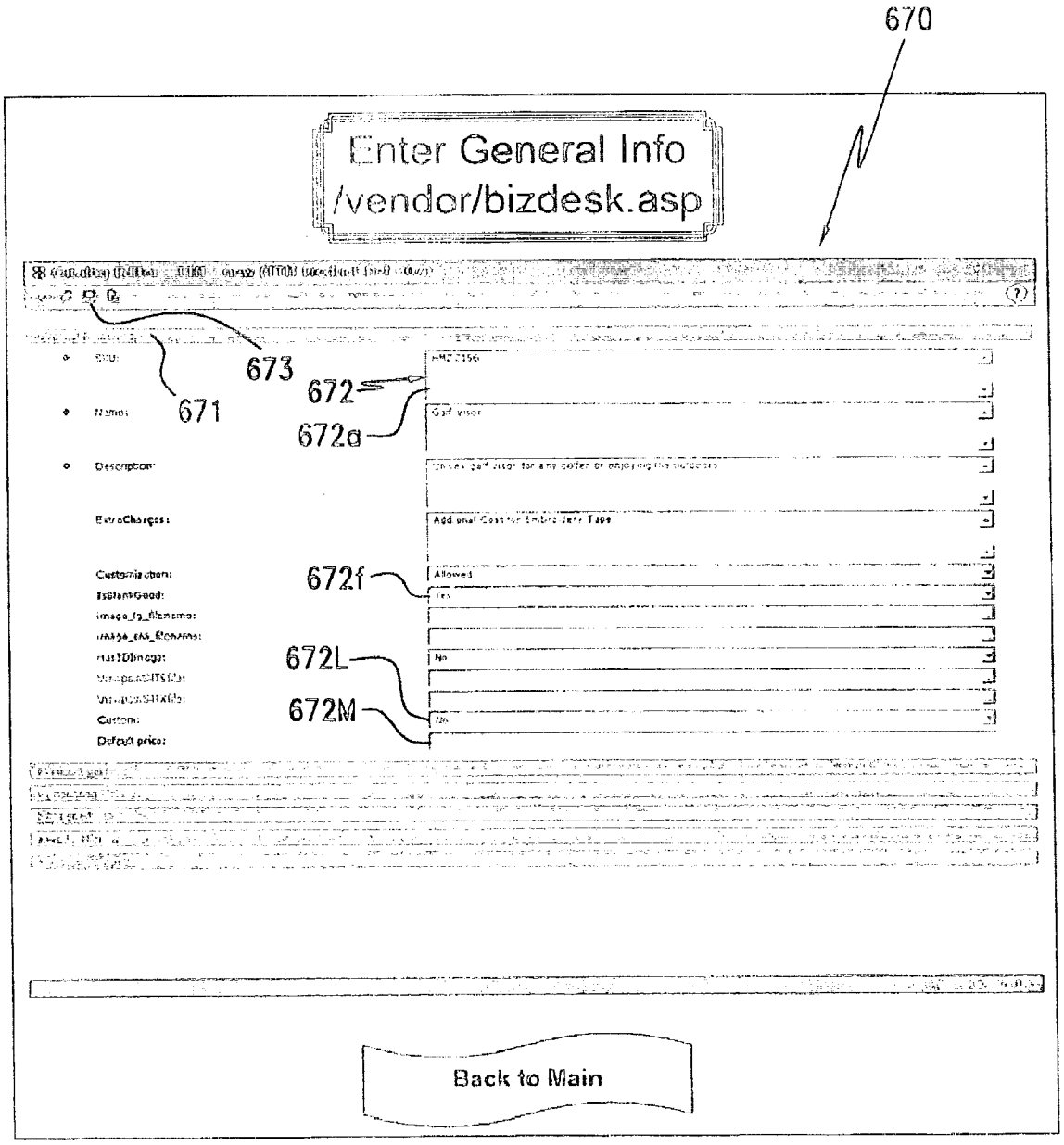

670
Enter General Info
/vendor/bizdesk.asp
673
671
672
672a
672f
672L
672M
Back to Main

FIG. 6D

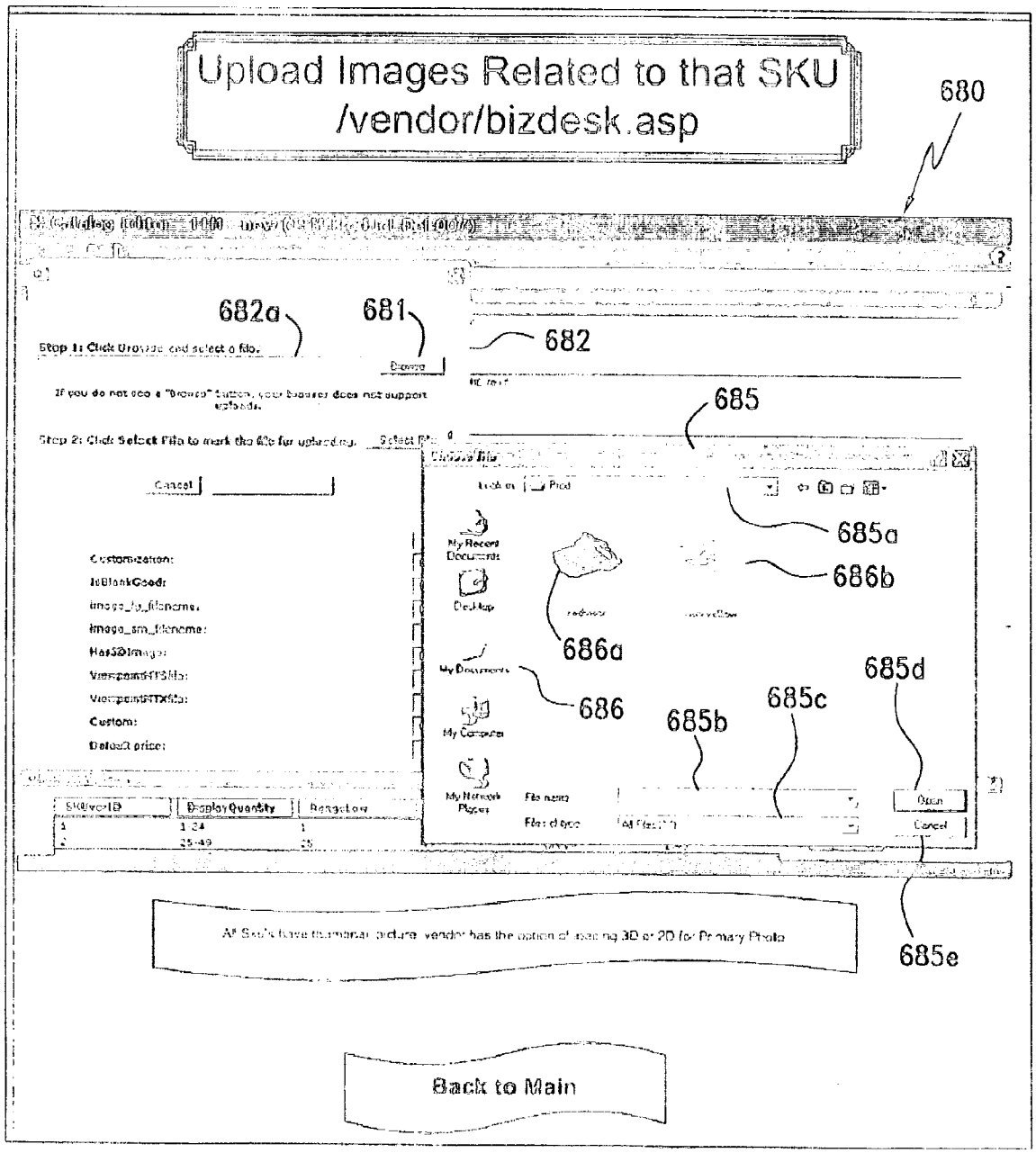

Upload Images Related to that SKU
/vendor/bizdesk.asp
680
682a
681
682
685
685a
686b
686a
686
685d
685c
685b
685e
Back to Main

FIG. 6E

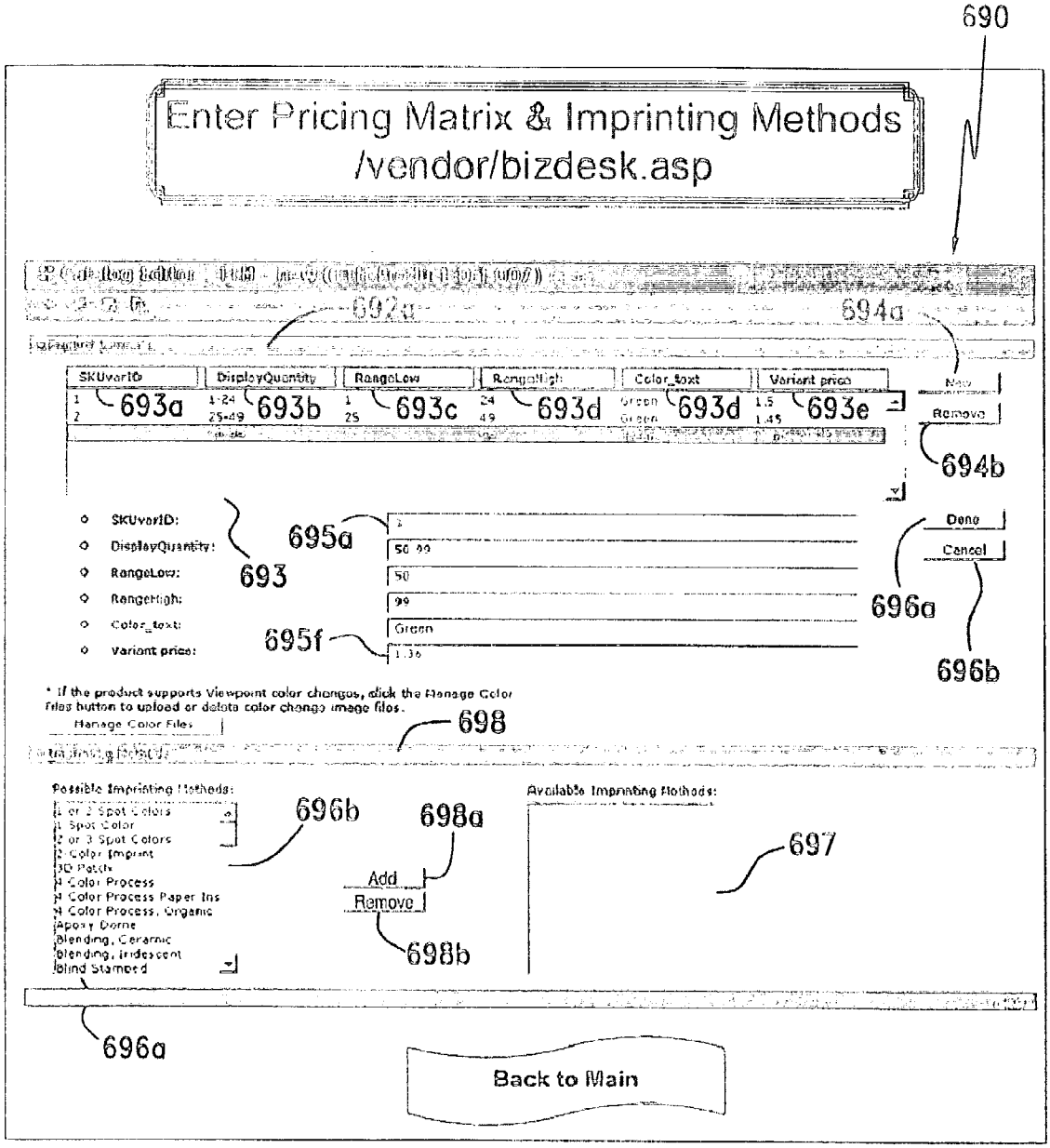

690
Enter Pricing Matrix & Imprinting Methods
/vendor/bizdesk.asp
692a
694a
SKUvarID
DisplayQuantity
RangeLow
RangeHigh
Color_text
Variant price
693a
693b
693c
693d
693d
693e
694b
SKUvarID:
DisplayQuantity:
RangeLow:
RangeHigh:
Color_text:
Variant price:
695a
693
695f
Green
1.36
Done
Cancel
696a
696b
* If the product supports viewpoint color changes, click the Manage Color files button to upload or delete color change image files.
Manage Color Files
698
Possible Imprinting Methods:
Available Imprinting Methods:
696b
698a
Add
Remove
698b
697
696a
Back to Main

FIG. 6F

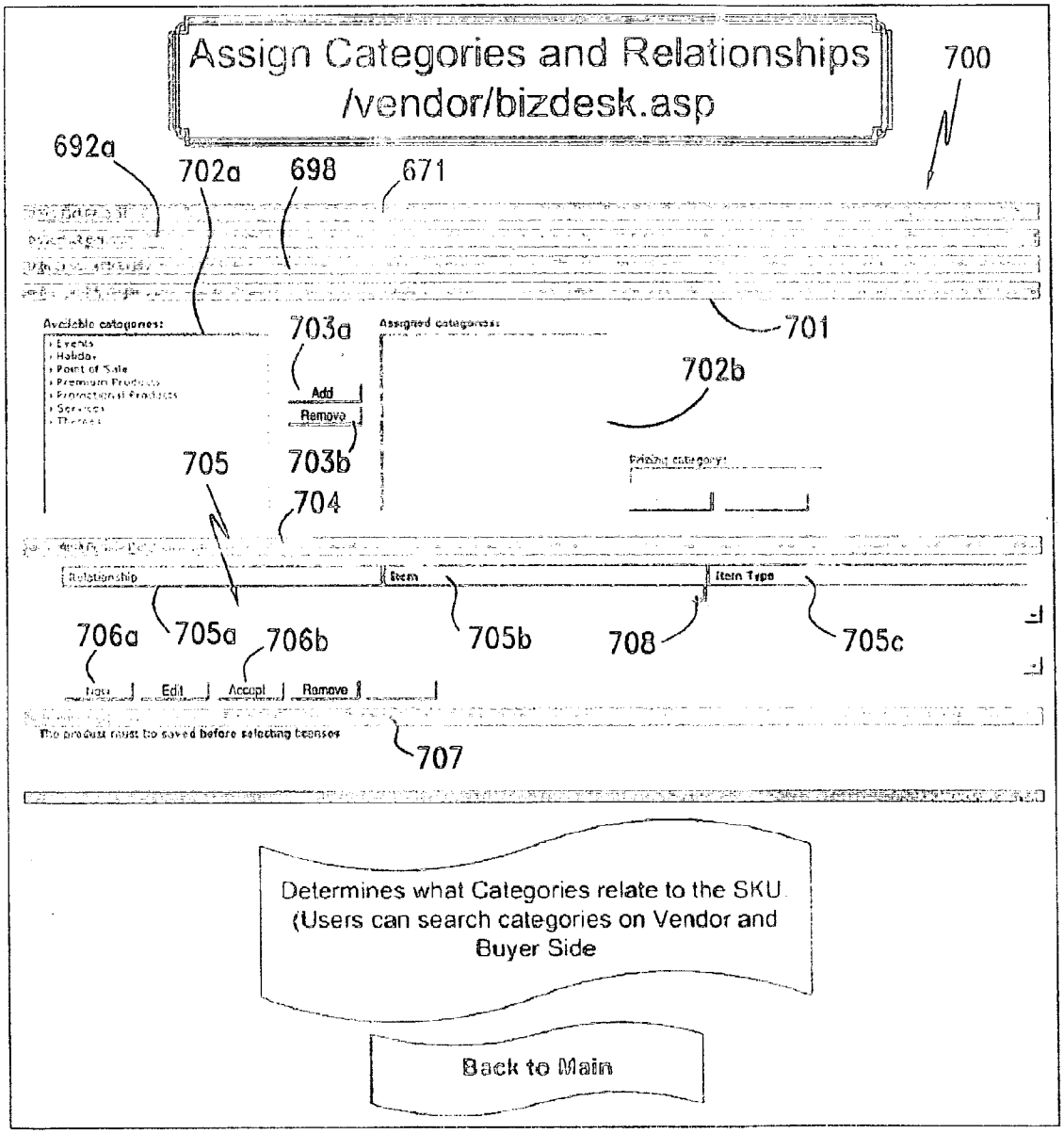

Assign Categories and Relationships
/vendor/bizdesk.asp
700
692a
702a
698
671
701
703a
Add
Remove
703b
702b
705
704
Relationship
Item
Item Type
706a
705a
706b
705b
708
705c
Edit
Accept
Remove
707
Determines what Categories relate to the SKU
(Users can search categories on Vendor and
Buyer Side
Back to Main

FIG. 6G

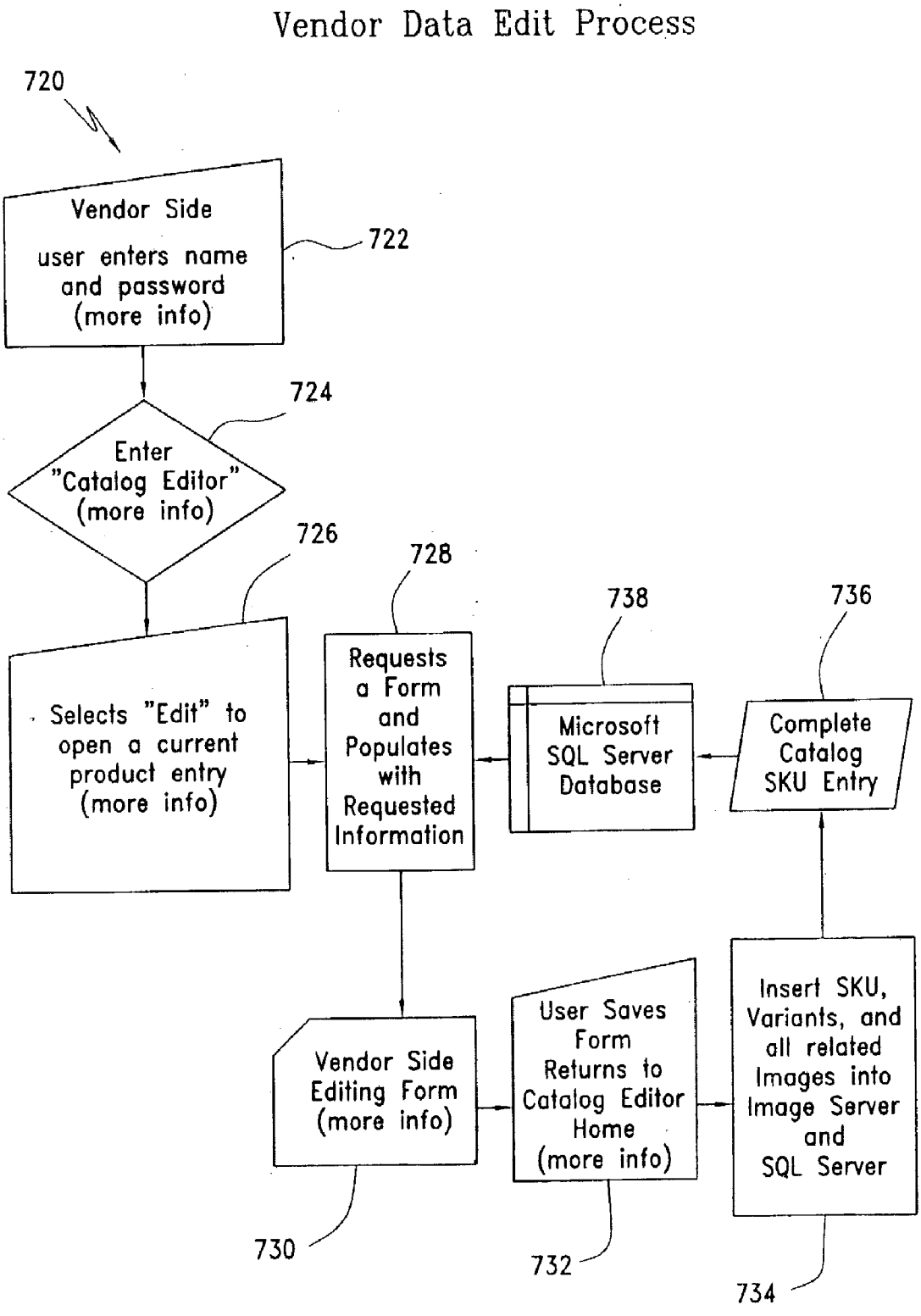

Vendor Data Edit Process
720
Vendor Side
user enters name and password (more info)
722
724
Enter "Catalog Editor" (more info)
726
728
738
736
Selects "Edit" to open a current product entry (more info)
Requests a Form and Populates with Requested Information
Microsoft SQL Server Database
Complete Catalog SKU Entry
Vendor Side Editing Form (more info)
User Saves Form Returns to Catalog Editor Home (more info)
Insert SKU, Variants, and all related Images into Image Server and SQL Server
730
732
734

FIG. 7

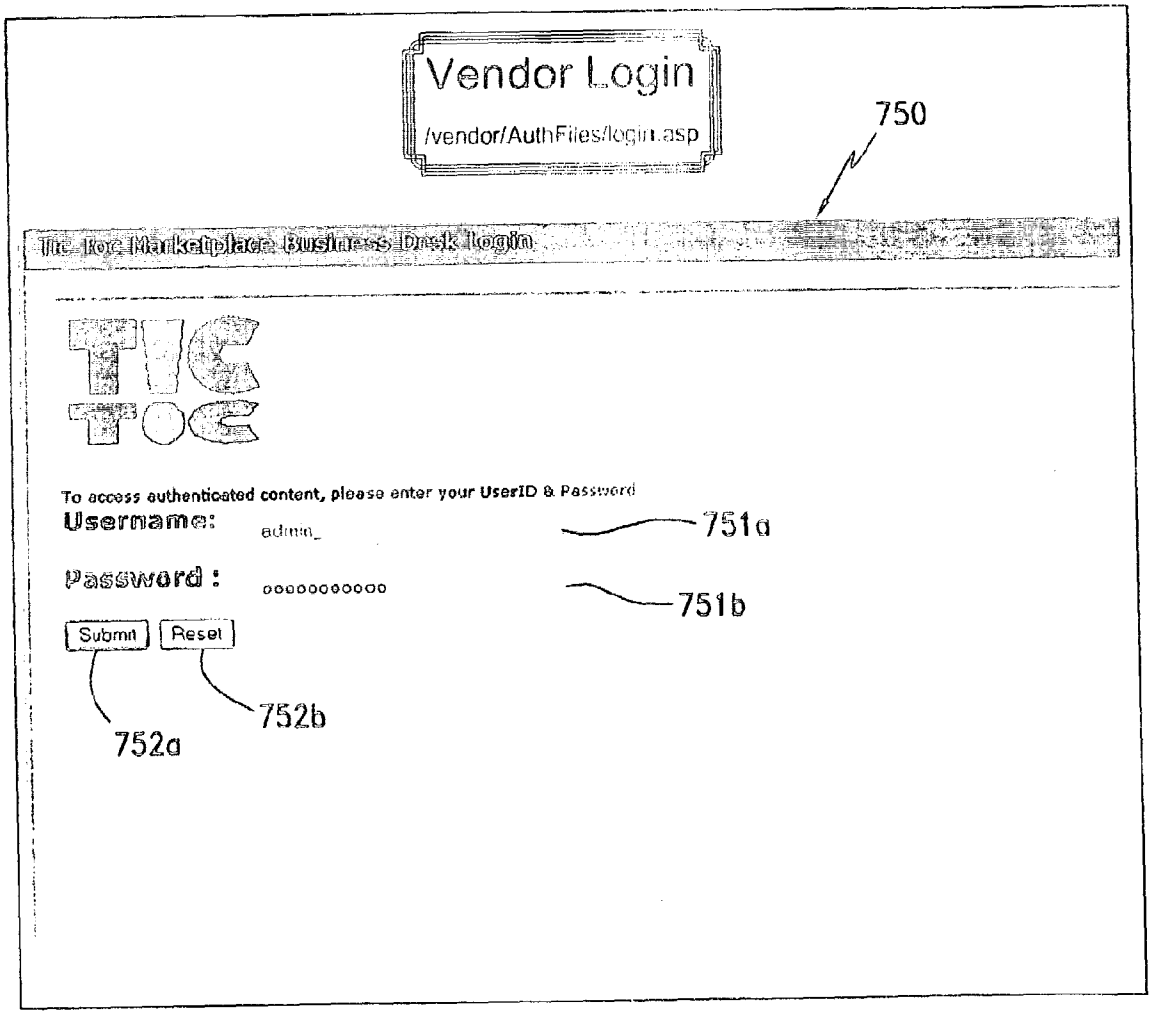

Vendor Login
/vendor/AuthFiles/login.asp
750
TIC TOC
To access authenticated content, please enter your UserID & Password
Username:
admin_
751a
Password :
751b
Submit
Reset
752b
752a

FIG. 8A

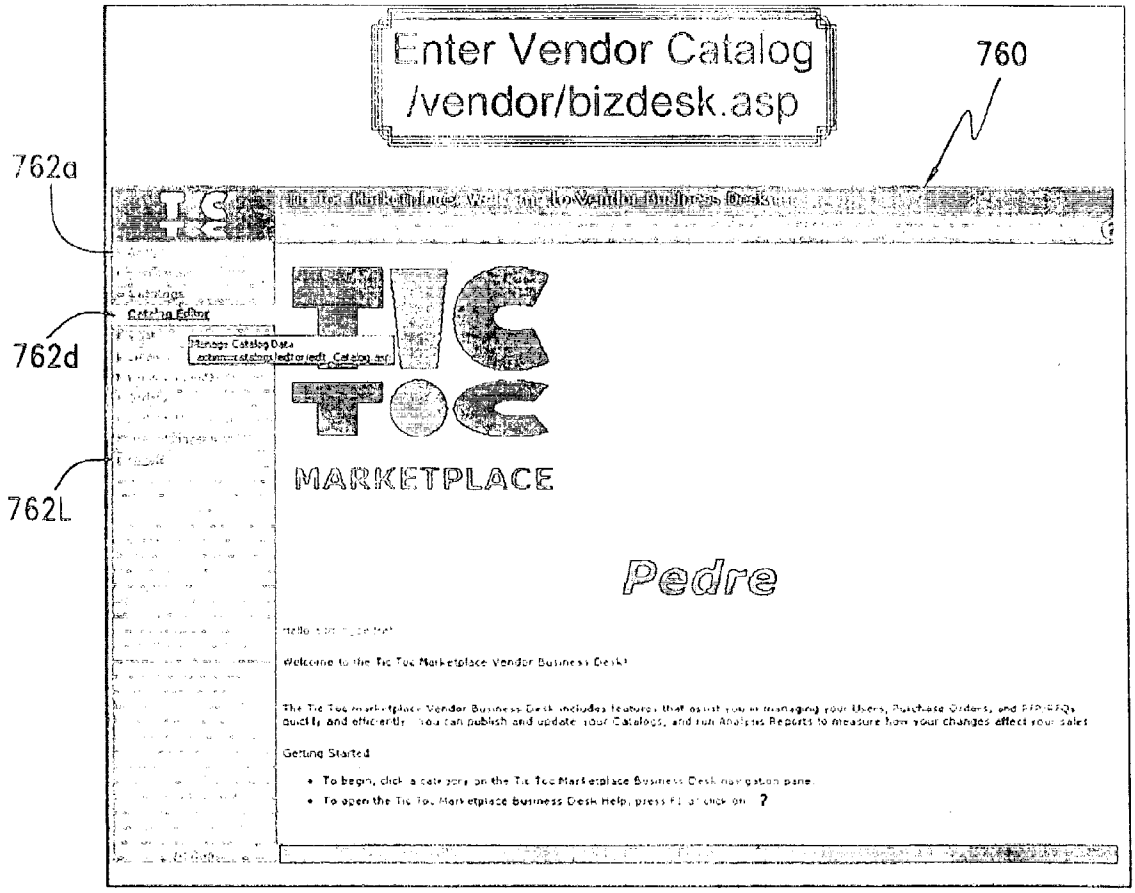

Enter Vendor Catalog
/vendor/bizdesk.asp
760
762a
762d
762L
MARKETPLACE
Pedre
Welcome to the Tic Toc Marketplace Vendor Business Desk!
Getting Started

FIG. 8B

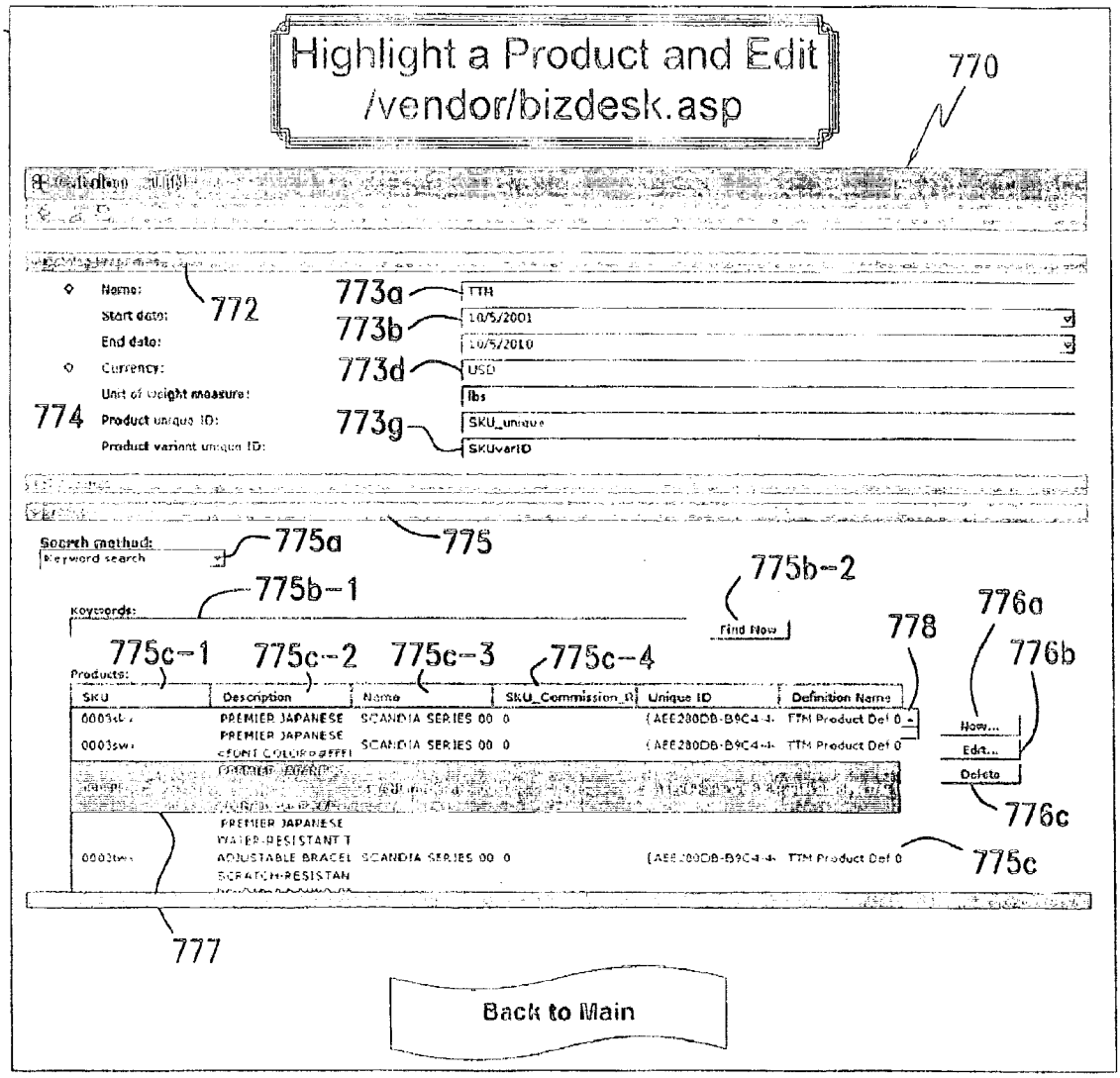

Highlight a Product and Edit
/vendor/bizdesk.asp
770
Name:
Start date:
End date:
Currency:
Unit of weight measure:
Product unique ID:
Product variant unique ID:
772
773a
773b
773d
773g
774
TTH
10/5/2001
10/5/2010
USD
lbs
SKU_unique
SKUvarID
Search method:
Keyword search
775a
775
775b-1
775b-2
Keywords:
Find Now
778
776a
776b
776c
775c-1
775c-2
775c-3
775c-4
Products:
SKU
Description
Name
SKU_Commission_R
Unique ID
Definition Name
PREMIER JAPANESE
SCANDIA SERIES 00 0
TTH Product Def 0
New...
Edit...
Delete
775c
777
Back to Main

FIG. 8C

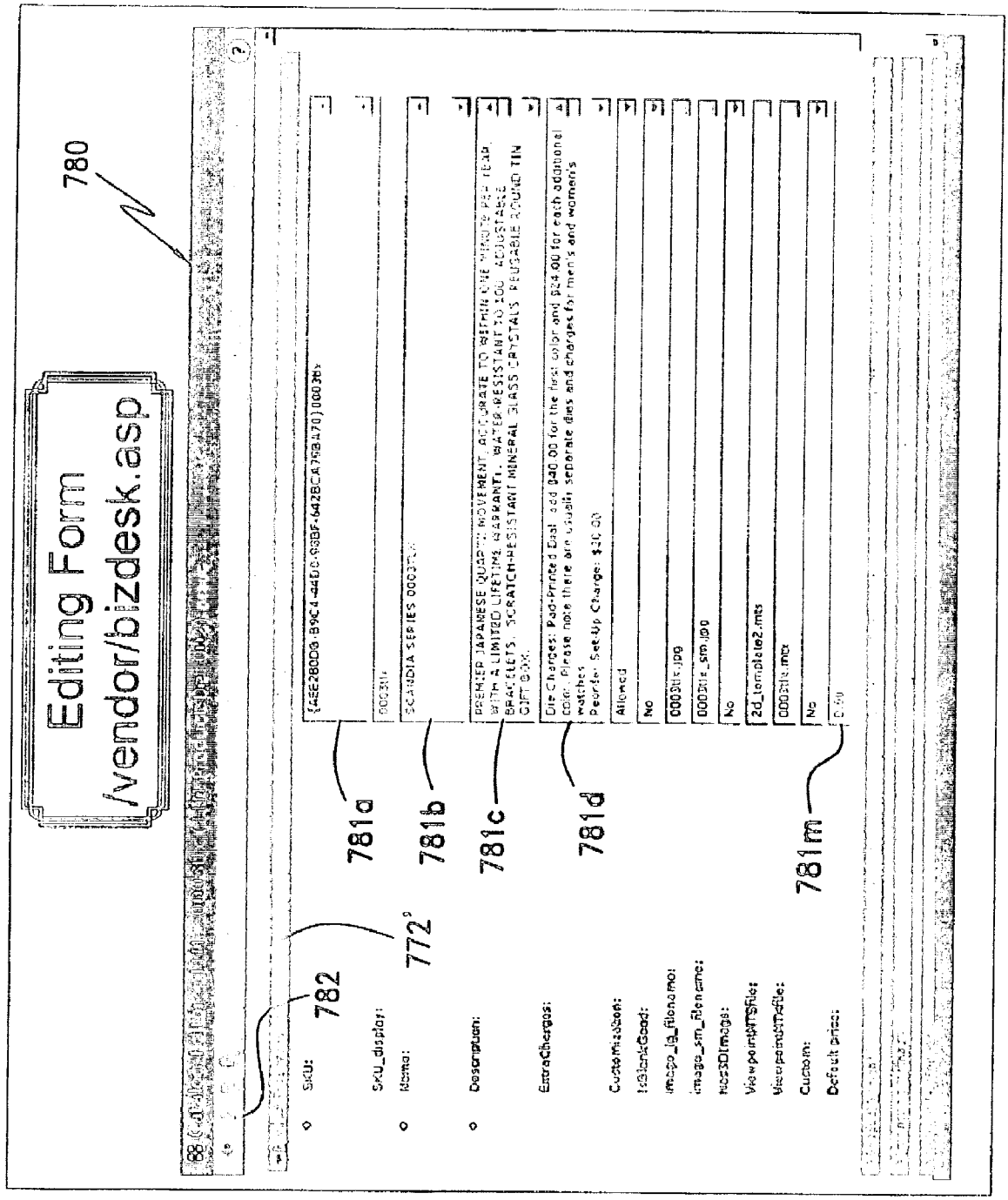

Editing Form
/vendor/bizdesk.asp
780
782
772'
781a
781b
781c
781d
781m
SKU:
SKU_display:
Name:
Description:
ExtraCharges:
Customization:
IsBlankGood:
image_lg_filename:
image_sm_filename:
Viewpoint NTSfile:
Viewpoint NTSfile:
Custom:
Default price:
SCANDIA SERIES 0003tlx
Allowed
No
0003tlx.jpg
0003tlx_sm.jpg
No
2d_template2.mts
0003tlx.mtx
No

FIG. 8D

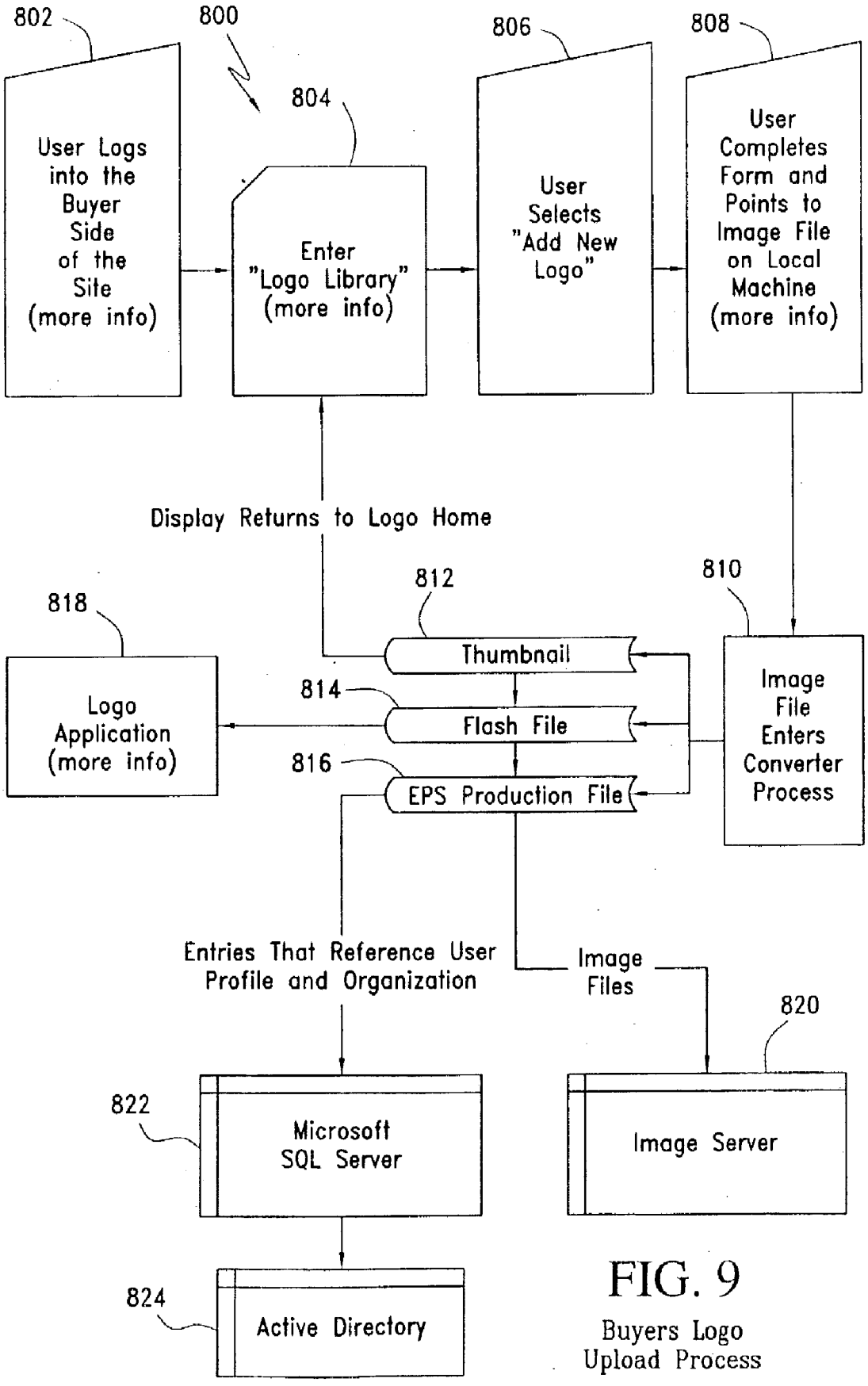


FIG. 9

Buyers Logo Upload Process

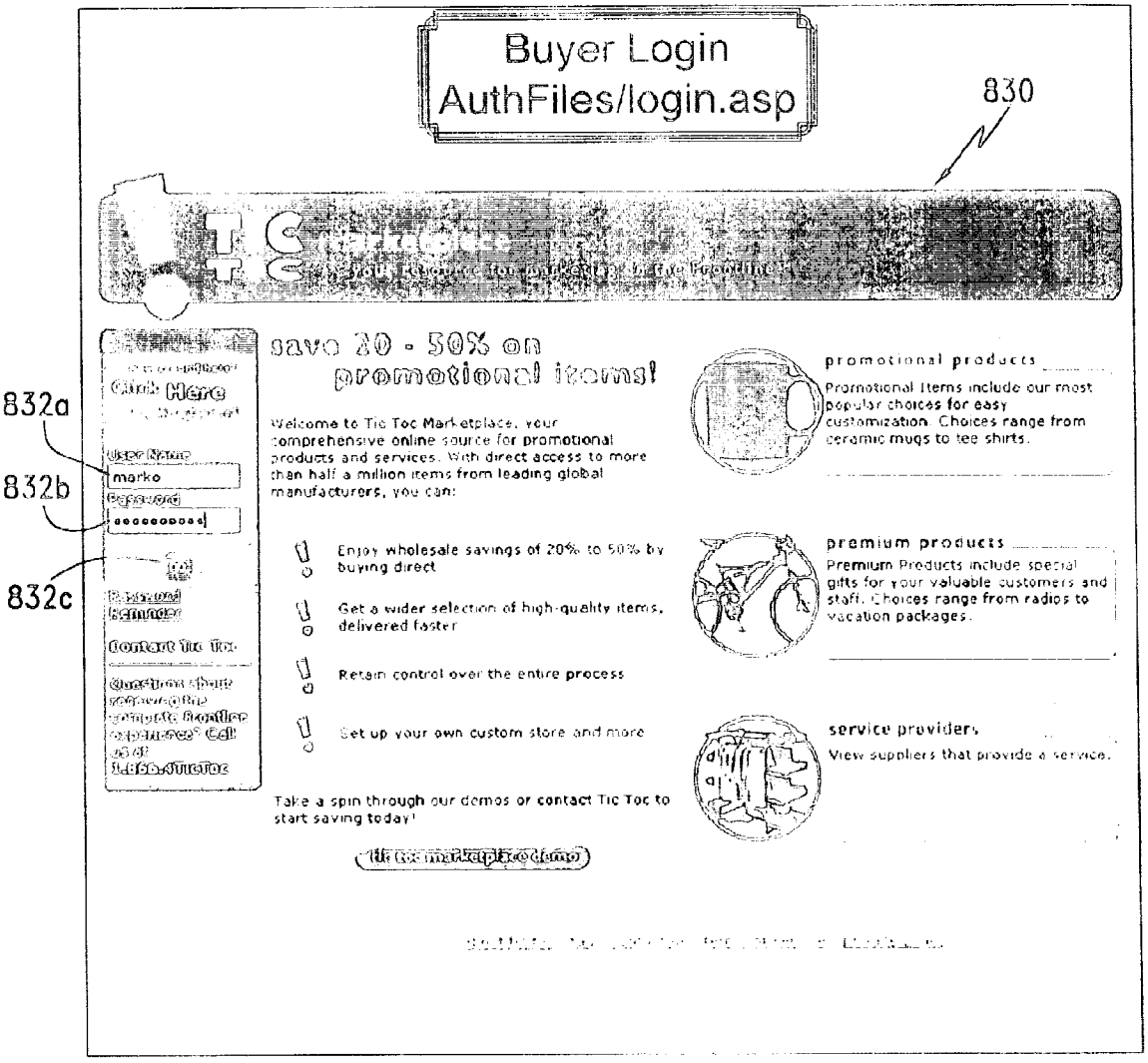

Buyer Login
AuthFiles/login.asp
830
832a
832b
832c
marko
save 20 - 50% on promotional items!
Welcome to Tic Toc Marketplace, your comprehensive online source for promotional products and services. With direct access to more than half a million items from leading global manufacturers, you can:
Enjoy wholesale savings of 20% to 50% by buying direct
Get a wider selection of high-quality items, delivered faster
Retain control over the entire process
Set up your own custom store and more
Take a spin through our demos or contact Tic Toc to start saving today!
promotional products
Promotional Items include our most popular choices for easy customization. Choices range from ceramic mugs to tee shirts.
premium products
Premium Products include special gifts for your valuable customers and staff. Choices range from radios to vacation packages.
service providers
View suppliers that provide a service.

FIG. 10A

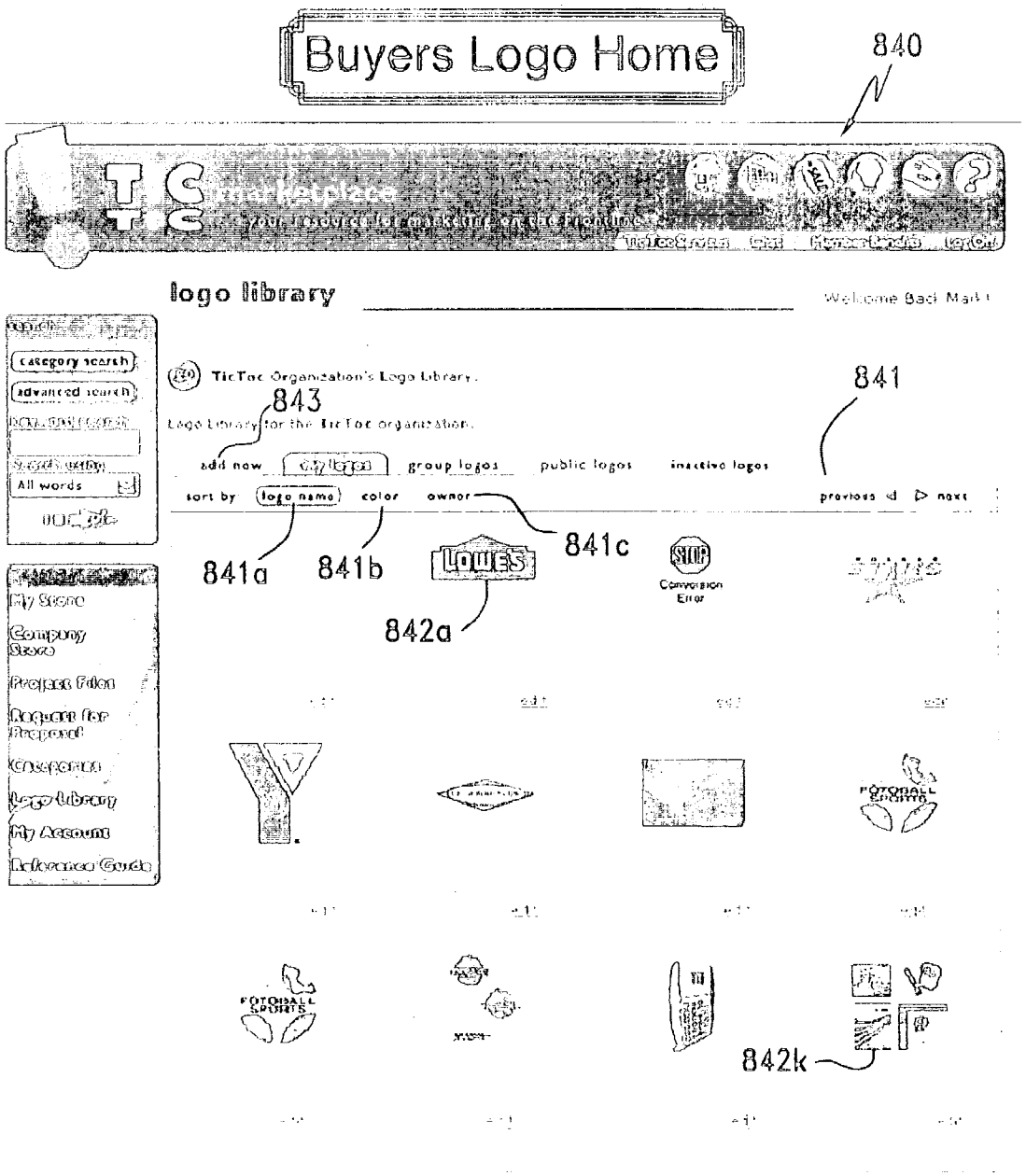

Buyers Logo Home
840
logo library
category search
advanced search
All words
TicTac Organization's Logo Library.
843
841
add new
group logos
public logos
inactive logos
sort by
logo name
color
owner
previous
next
841a
841b
841c
842a
842k
LOWES
STOP
Conversion Error

FIG. 10B

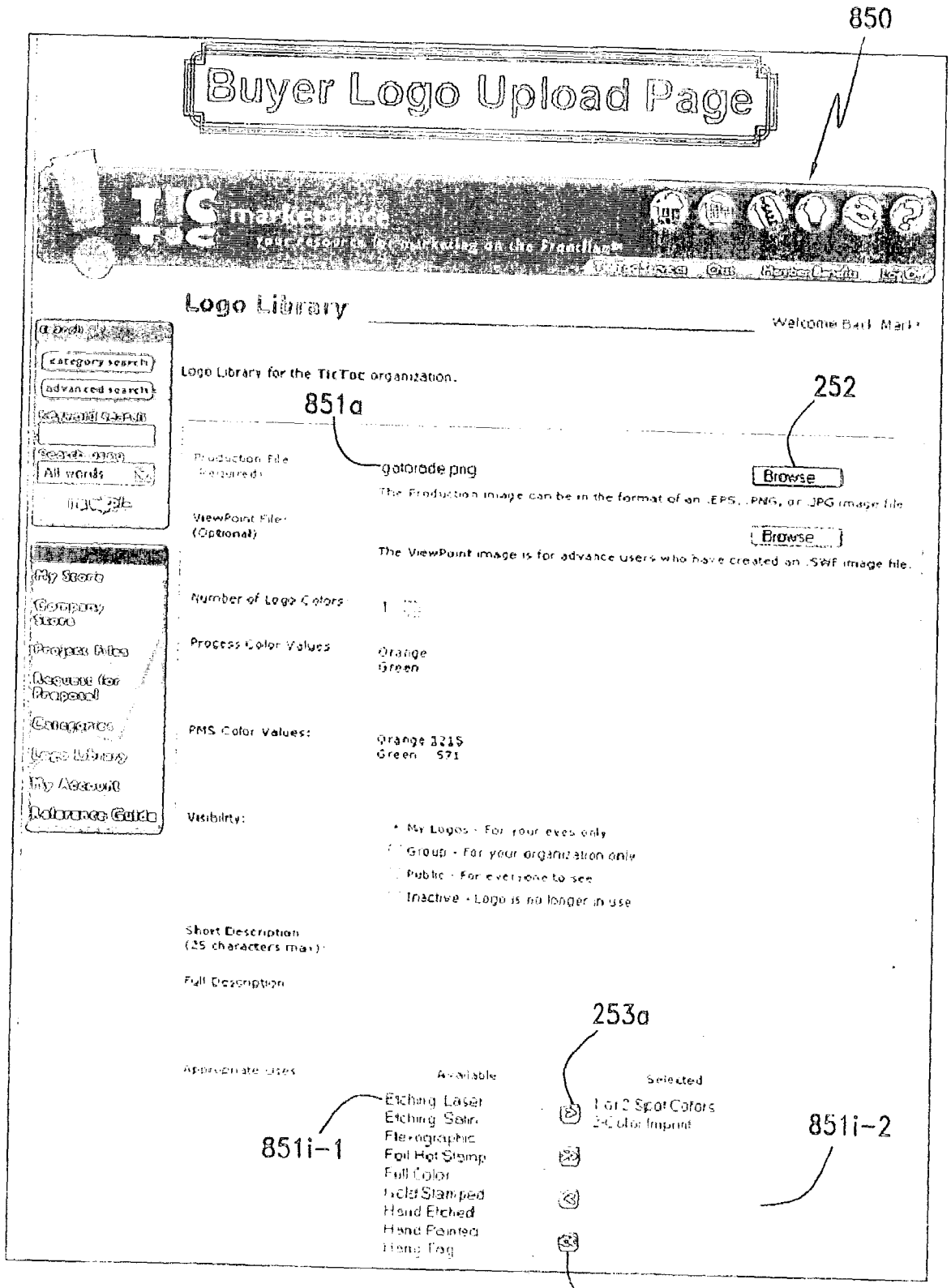

850
Buyer Logo Upload Page
Logo Library
Welcome Bart Marr
Logo Library for the TicToc organization.
851a
252
gatorade.png
Browse
The Production image can be in the format of an .EPS, .PNG, or .JPG image file.
ViewPoint File (Optional)
Browse
The ViewPoint image is for advance users who have created an .SWF image file.
Number of Logo Colors:
Process Color Values:
Orange
Green
PMS Color Values:
Orange 3215
Green 571
Visibility:
My Logos - For your eyes only
Group - For your organization only
Public - For everyone to see
Inactive - Logo is no longer in use
Short Description (25 characters max):
Full Description:
253a
Appropriate Uses:
Available
Selected
Etching Laser
Etching Satin
Flexographic
Foil Hot Stamp
Full Color
Hot Stamped
Hand Etched
Hand Painted
Hang Tag
1 or 2 Spot Colors
851i-1
851i-2
253d

FIG. 10C

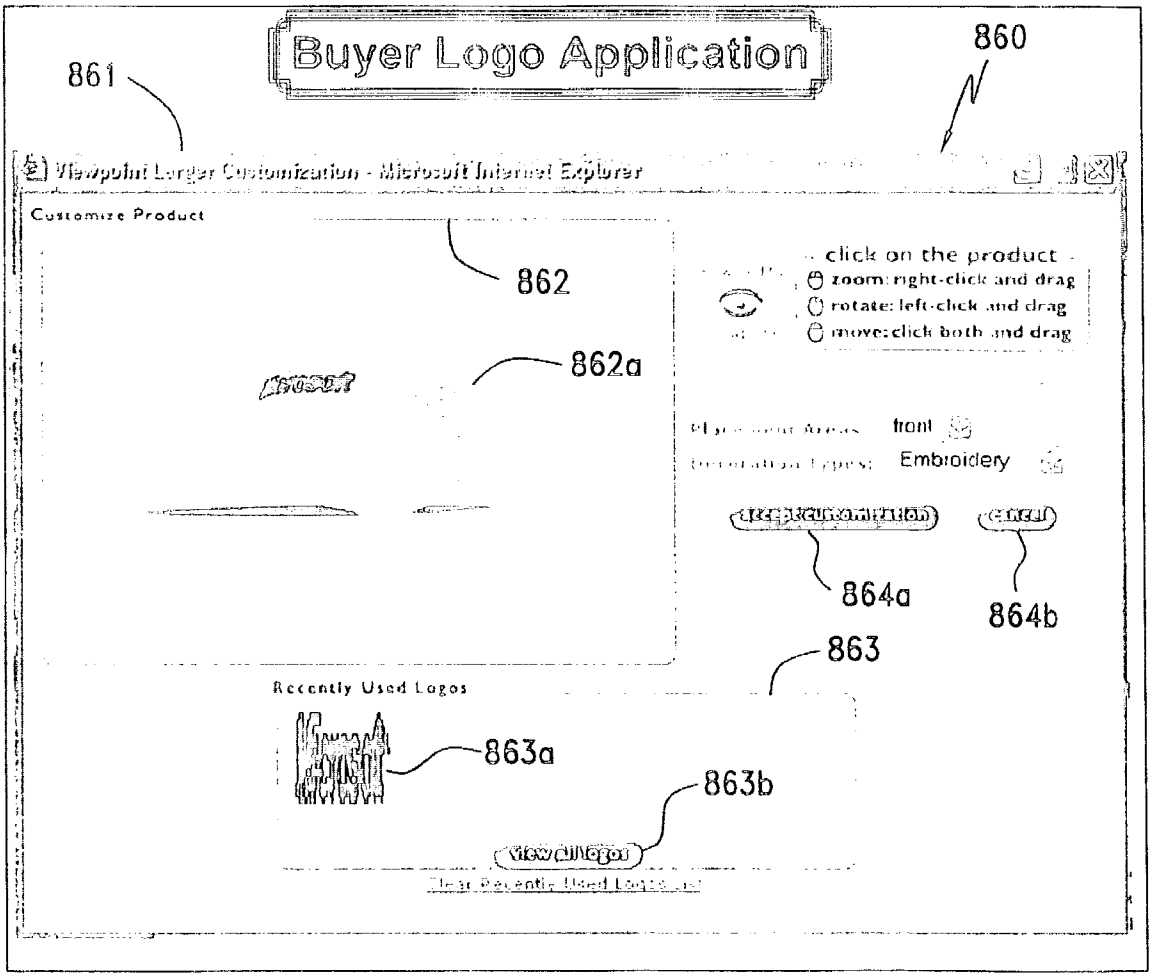

Buyer Logo Application
860
861
Viewpoint Larger Customization - Microsoft Internet Explorer
Customize Product
862
862a
click on the product
zoom: right-click and drag
rotate: left-click and drag
move: click both and drag
front
Embroidery
864a
864b
863
Recently Used Logos
863a
863b

FIG. 10D

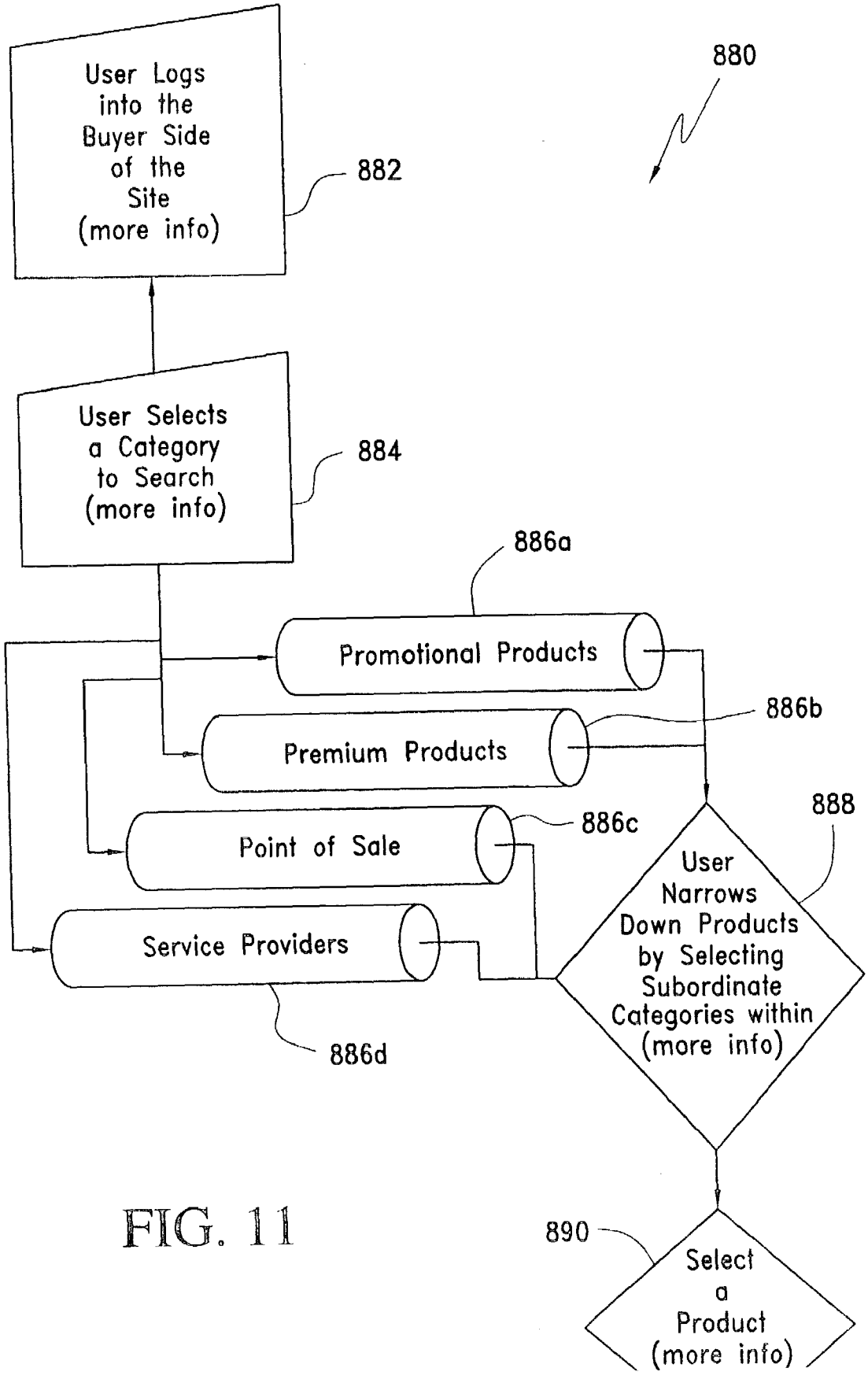

880
User Logs into the Buyer Side of the Site (more info)
882
User Selects a Category to Search (more info)
884
886a
Promotional Products
886b
Premium Products
886c
Point of Sale
Service Providers
886d
888
User Narrows Down Products by Selecting Subordinate Categories within (more info)
890
Select a Product (more info)

FIG. 11

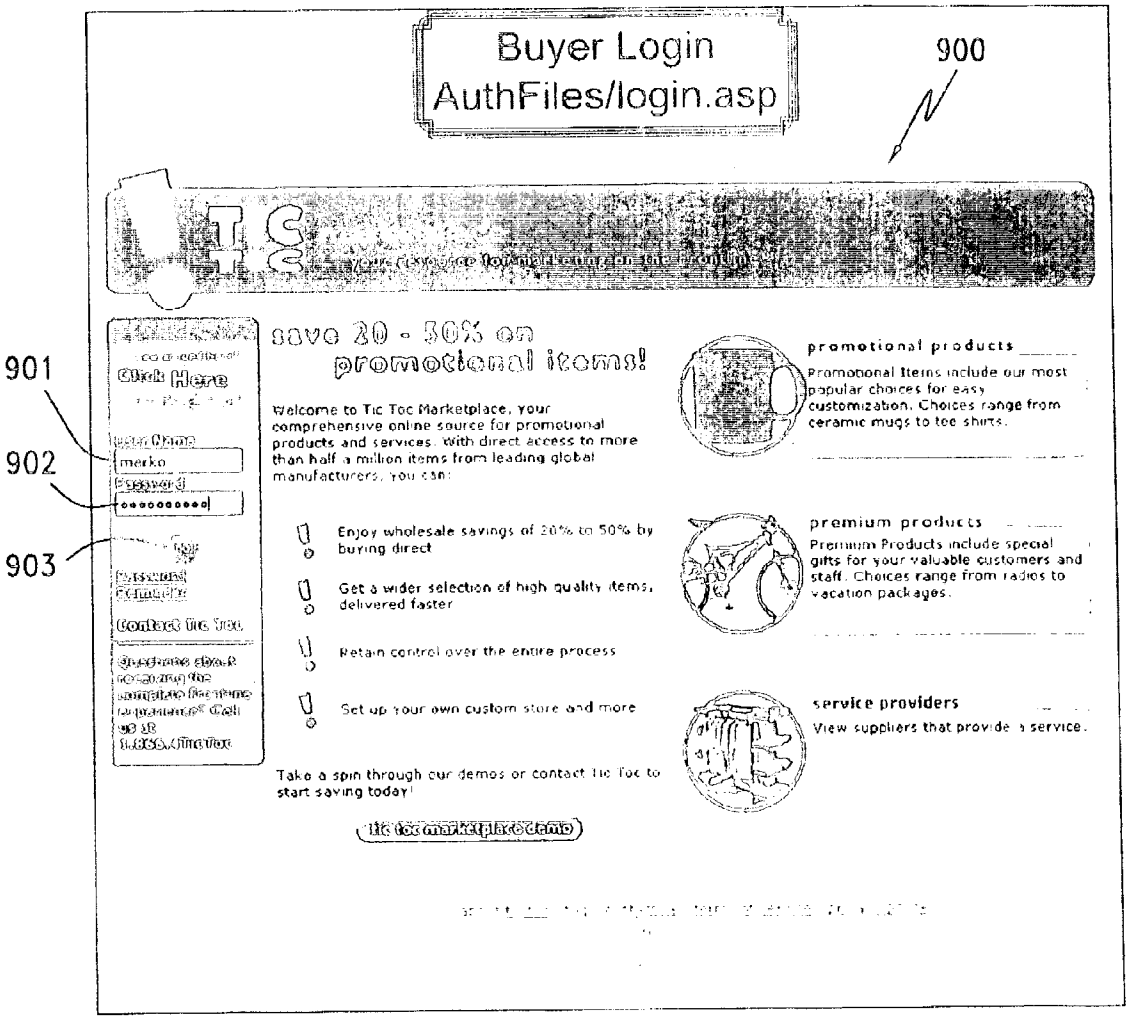

Buyer Login
AuthFiles/login.asp
900
901
902
903
merko
Click Here
save 20 - 50% on promotional items!
Welcome to Tic Toc Marketplace, your comprehensive online source for promotional products and services. With direct access to more than half a million items from leading global manufacturers, you can:
Enjoy wholesale savings of 20% to 50% by buying direct
Get a wider selection of high quality items, delivered faster
Retain control over the entire process
Set up your own custom store and more
Take a spin through our demos or contact Tic Toc to start saving today!
promotional products
Promotional Items include our most popular choices for easy customization. Choices range from ceramic mugs to tee shirts.
premium products
Premium Products include special gifts for your valuable customers and staff. Choices range from radios to vacation packages.
service providers
View suppliers that provide a service.

FIG. 12A

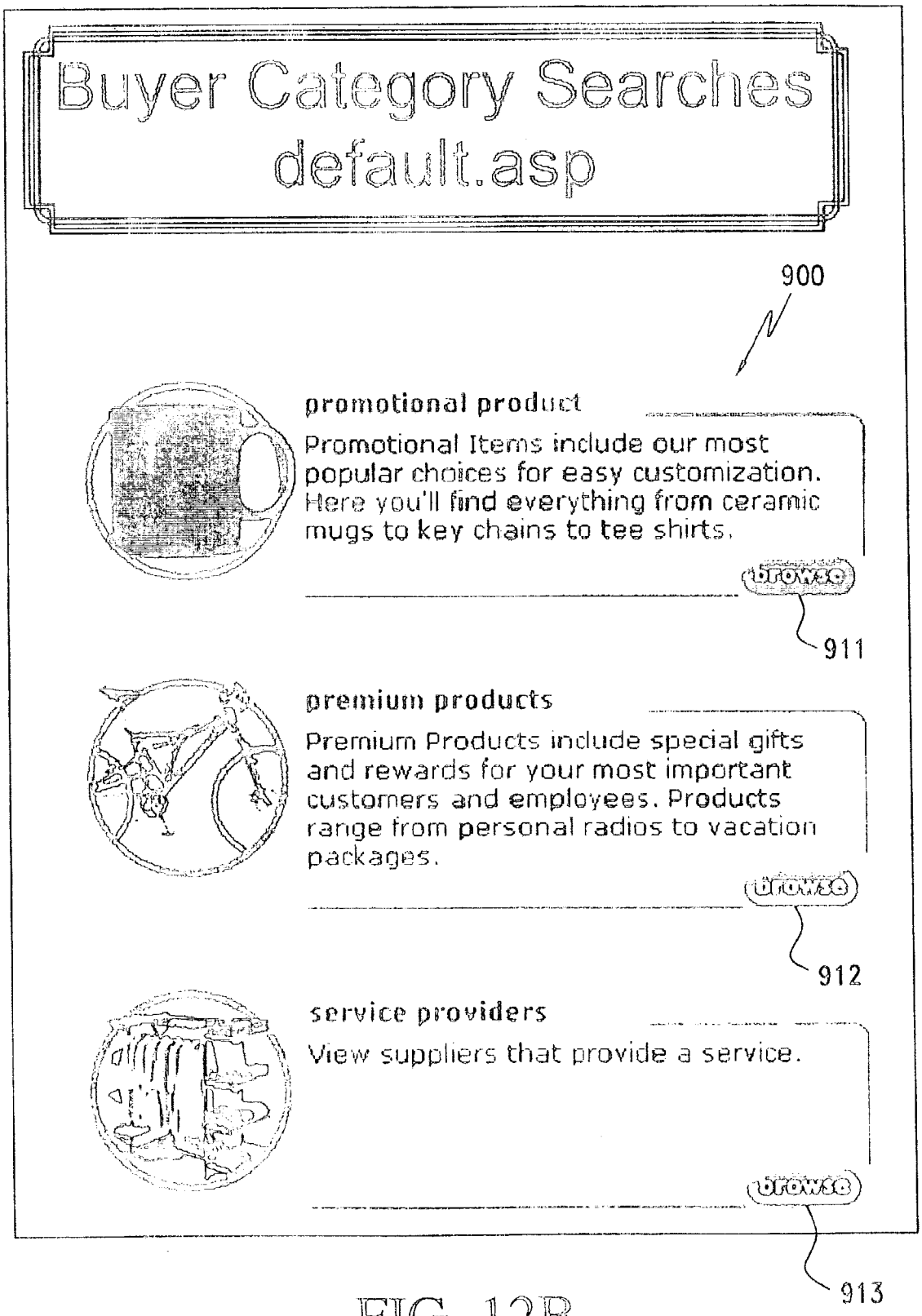

Buyer Category Searches
default.asp
900
promotional product
Promotional Items include our most popular choices for easy customization. Here you'll find everything from ceramic mugs to key chains to tee shirts.
BROWSE
911
premium products
Premium Products include special gifts and rewards for your most important customers and employees. Products range from personal radios to vacation packages.
BROWSE
912
service providers
View suppliers that provide a service.
BROWSE
913

FIG. 12B

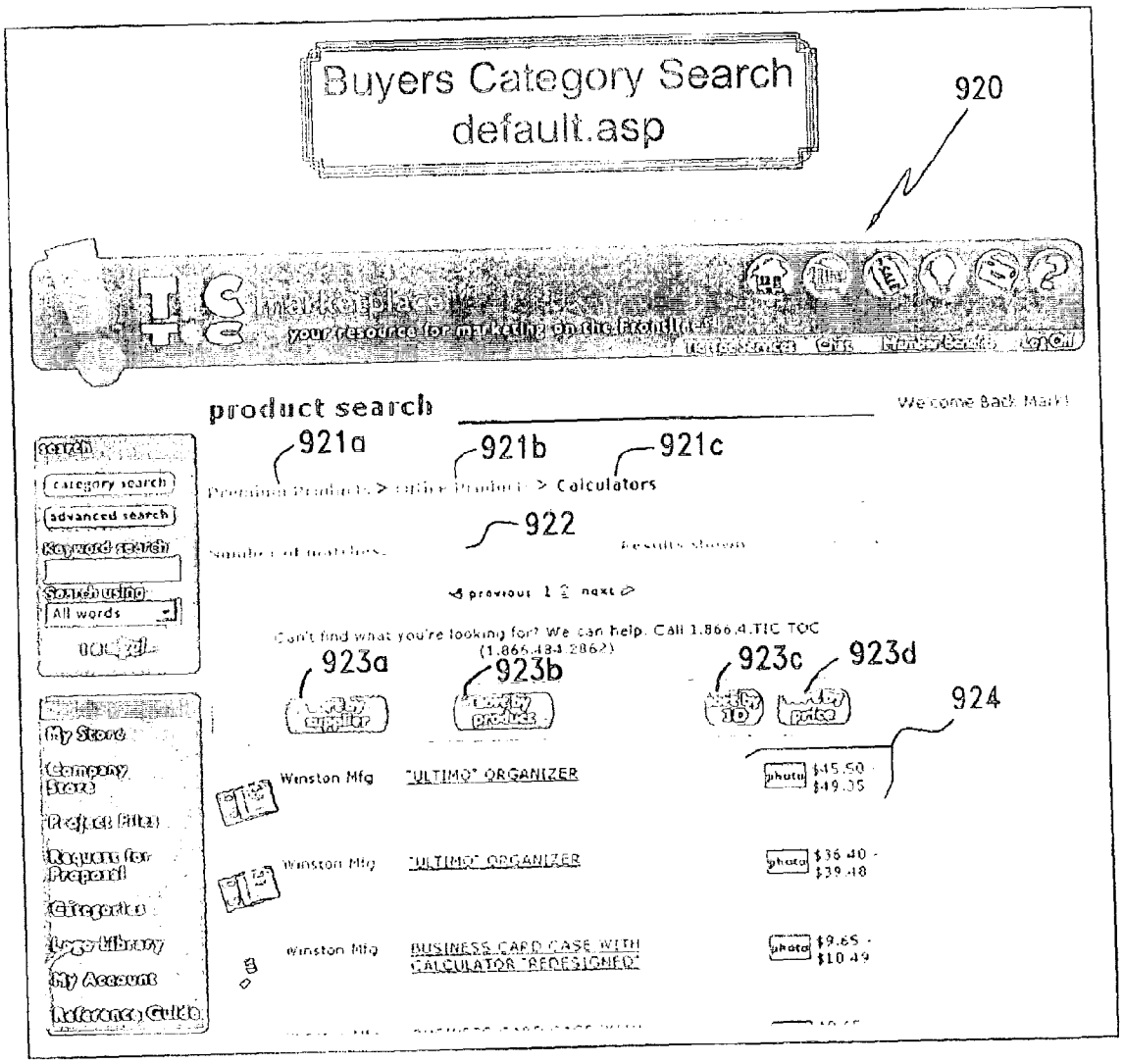

Buyers Category Search
default.asp
920
product search
921a
921b
921c
Calculators
922
category search
advanced search
keyword search
All words
previous 1 next
923a
923b
923c
923d
924
Winston Mfg
"ULTIMO" ORGANIZER
Winston Mfg
"ULTIMO" ORGANIZER
Winston Mfg
BUSINESS CARD CASE WITH CALCULATOR "REDESIGNED"
$15.50
$49.35
$36.40
$39.48
$9.65
$10.49

FIG. 12C

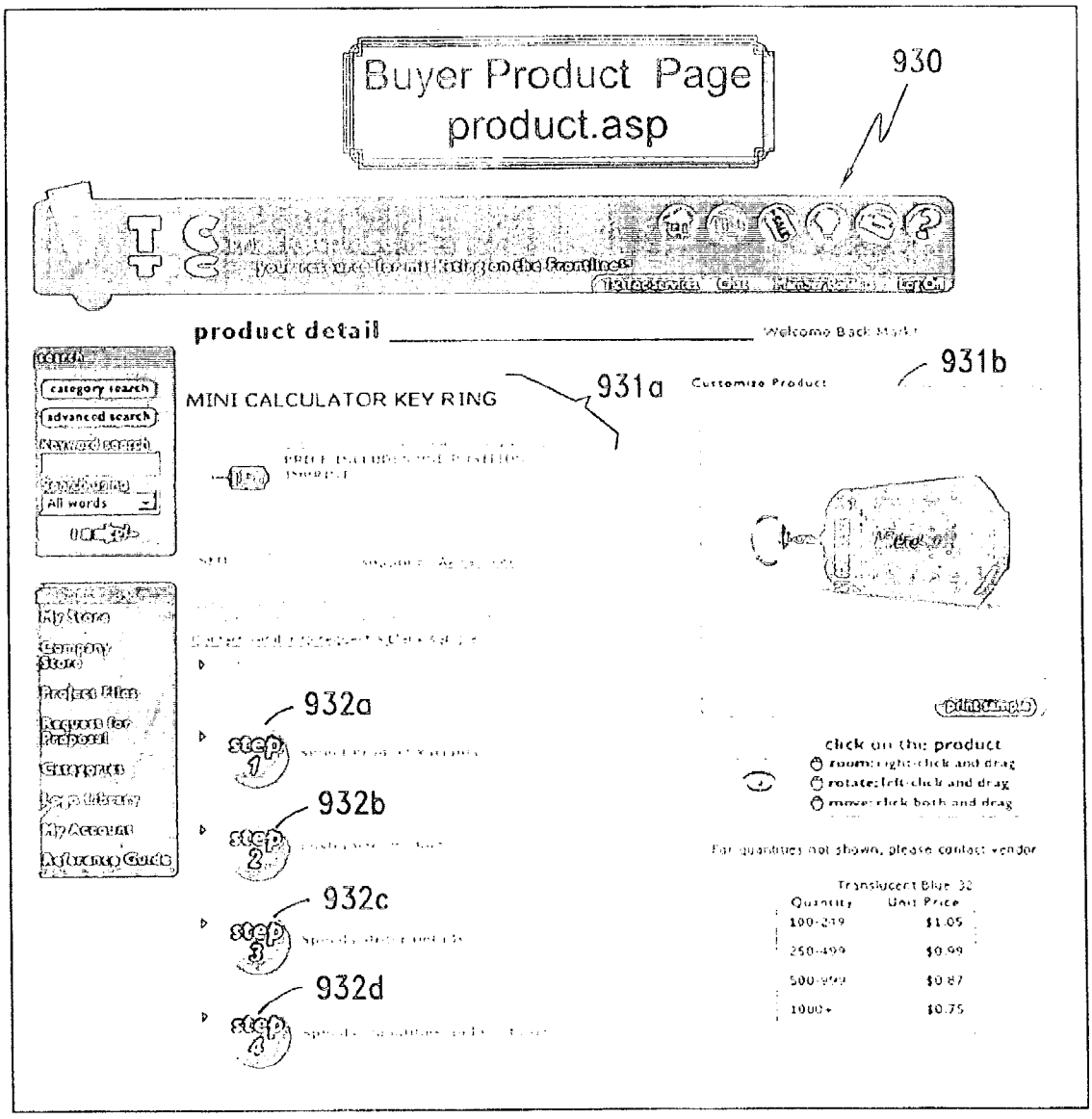

Buyer Product Page
product.asp
930
product detail
MINI CALCULATOR KEY RING
931a
Customize Product
931b
category search
advanced search
All words
932a
932b
932c
932d
click on the product

FIG. 12D

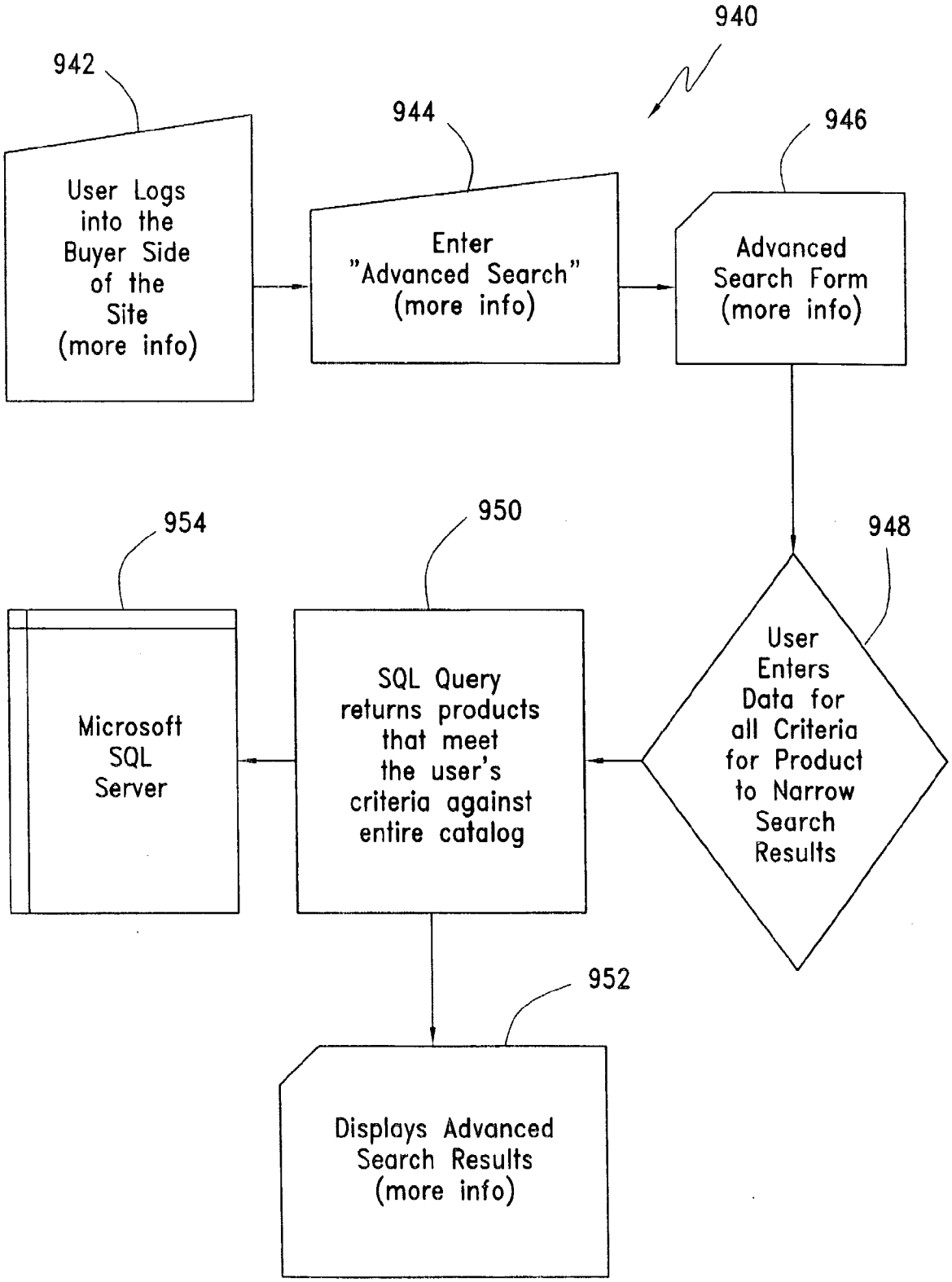


FIG. 13

Advanced Search Process

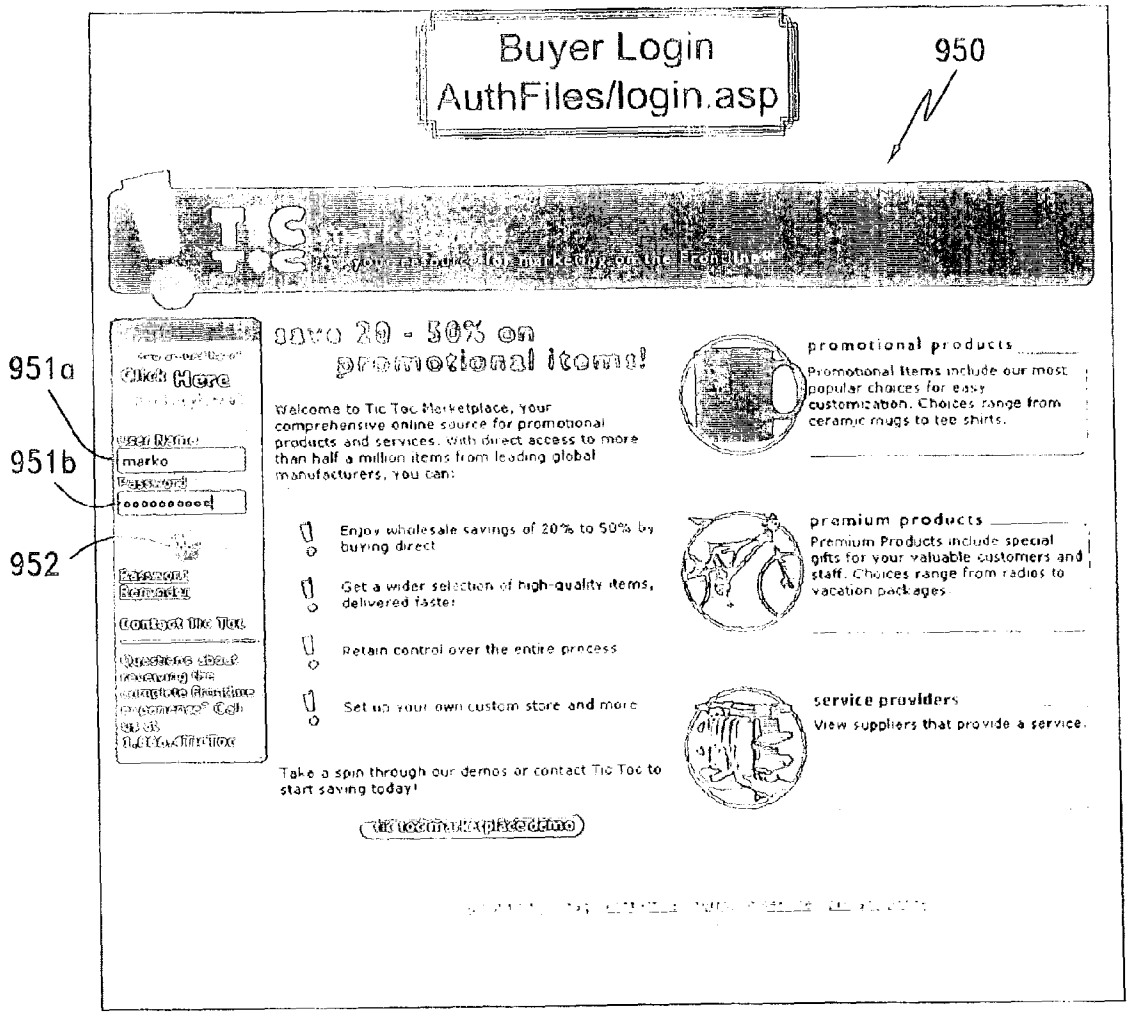

Buyer Login
AuthFiles/login.asp
950
951a
951b
952
marko
save 20 - 50% on promotional items!
Welcome to Tic Toc Marketplace, your comprehensive online source for promotional products and services, with direct access to more than half a million items from leading global manufacturers, you can:
Enjoy wholesale savings of 20% to 50% by buying direct
Get a wider selection of high-quality items, delivered faster
Retain control over the entire process
Set up your own custom store and more
Take a spin through our demos or contact Tic Toc to start saving today!
promotional products
Promotional Items include our most popular choices for easy customization. Choices range from ceramic mugs to tee shirts.
premium products
Premium Products include special gifts for your valuable customers and staff. Choices range from radios to vacation packages.
service providers
View suppliers that provide a service.

FIG. 14A

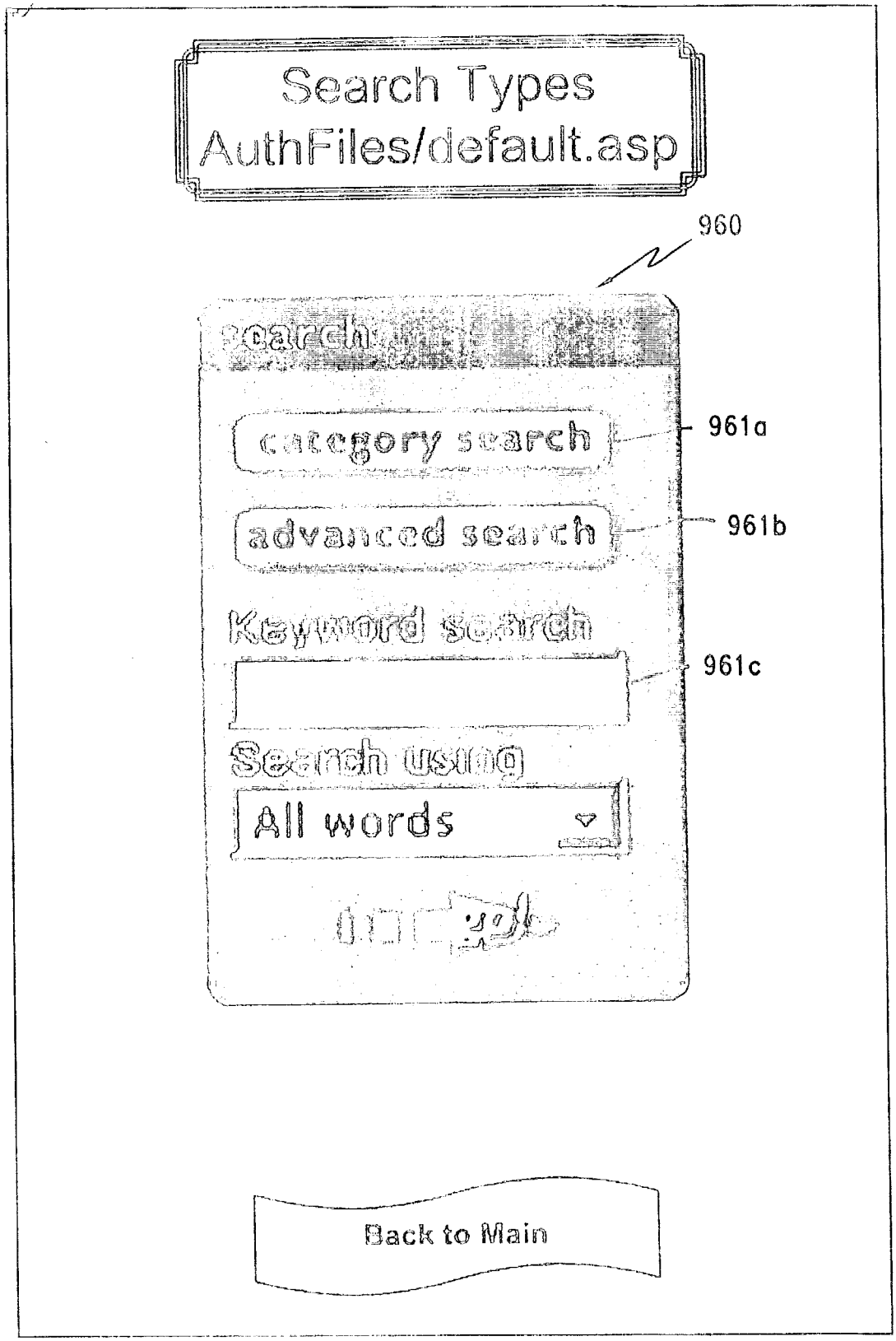

Search Types
AuthFiles/default.asp
960
Search
category search
961a
advanced search
961b
Keyword search
961c
Search using
All words
Back to Main

FIG. 14B

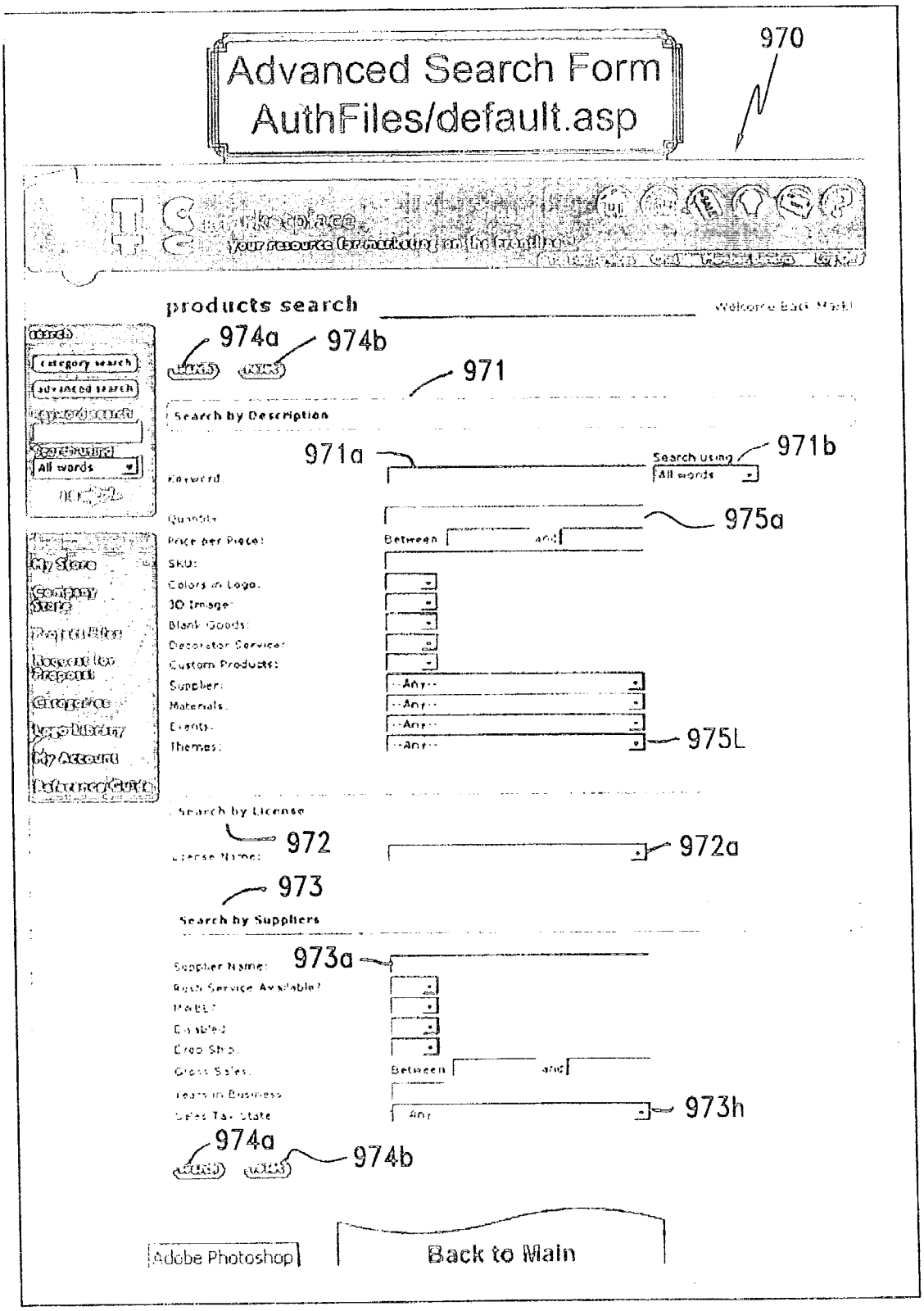

Advanced Search Form
AuthFiles/default.asp
970
products search
974a
974b
971
Search by Description
971a
Search using
971b
All words
975a
975L
Search by License
972
972a
973
Search by Suppliers
973a
973h
974a
974b
Adobe Photoshop
Back to Main

FIG. 14C

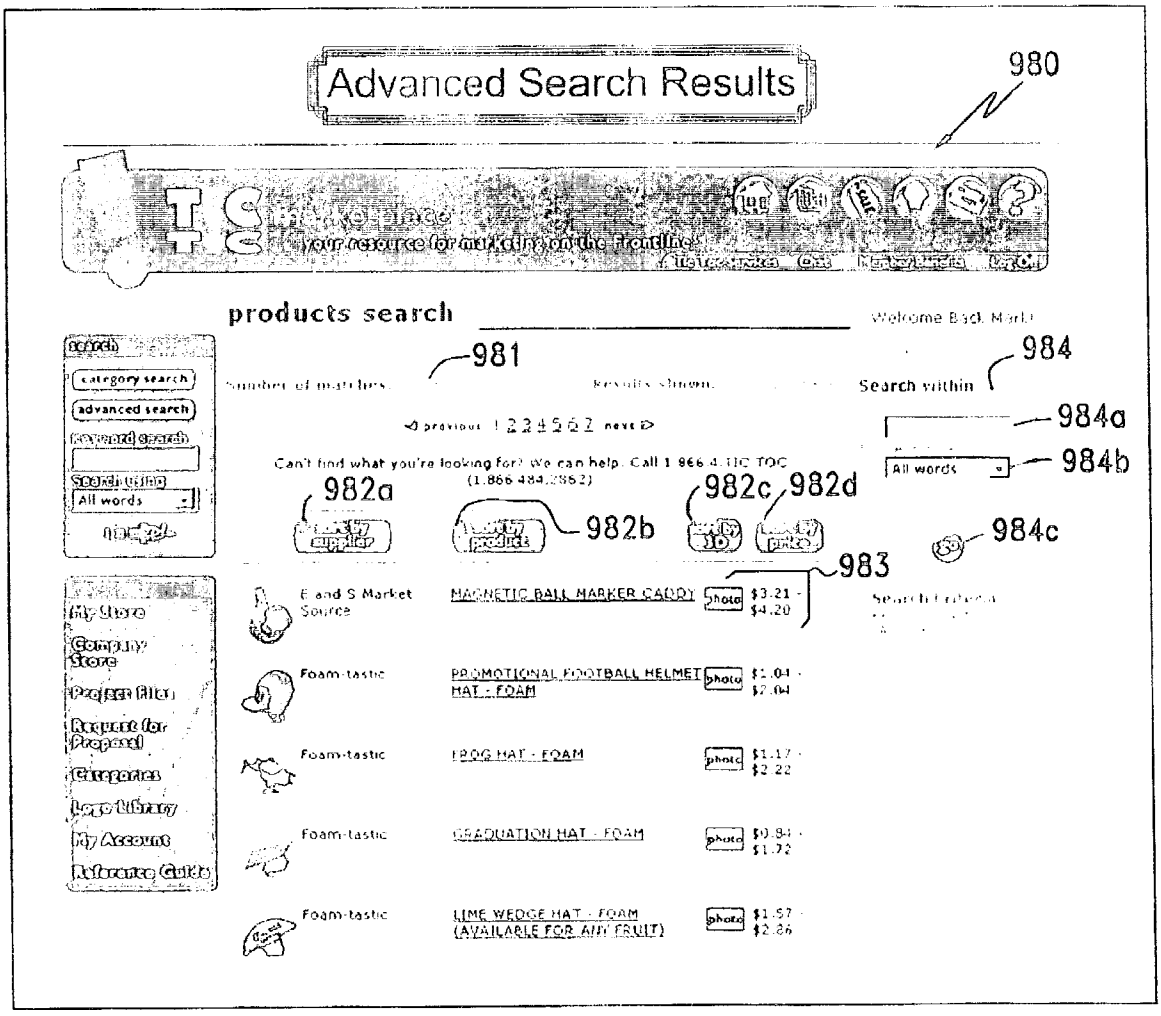

Advanced Search Results
980
products search
981
984
Search within
984a
984b
All words
982a
982b
982c
982d
984c
983
category search
advanced search
All words
E and S Market Source
MAGNETIC BALL MARKER CADDY
Foam-tastic
PROMOTIONAL FOOTBALL HELMET HAT - FOAM
Foam-tastic
FROG HAT - FOAM
Foam-tastic
GRADUATION HAT - FOAM
Foam-tastic
LIME WEDGE HAT - FOAM (AVAILABLE FOR ANY FRUIT)

FIG. 14D

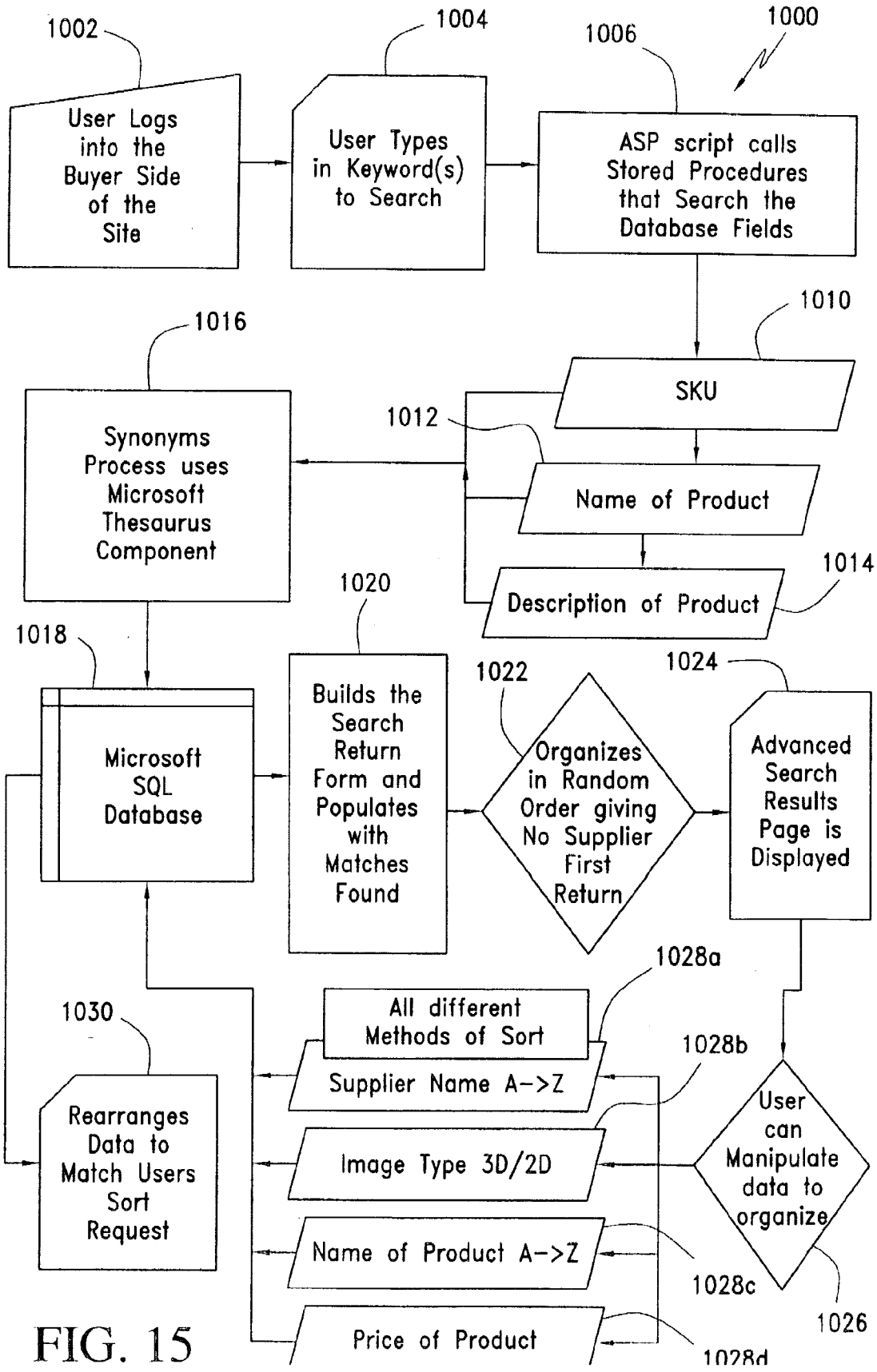

1002
User Logs into the Buyer Side of the Site
1004
User Types in Keyword(s) to Search
1006
1000
ASP script calls Stored Procedures that Search the Database Fields
1010
SKU
1012
Name of Product
Description of Product
1014
1016
Synonyms Process uses Microsoft Thesaurus Component
1018
Microsoft SQL Database
1020
Builds the Search Return Form and Populates with Matches Found
1022
Organizes in Random Order giving No Supplier First Return
1024
Advanced Search Results Page is Displayed
1026
User can Manipulate data to organize
1028a
All different Methods of Sort
Supplier Name A->Z
1028b
Image Type 3D/2D
Name of Product A->Z
1028c
Price of Product
1028d
1030
Rearranges Data to Match Users Sort Request

FIG. 15

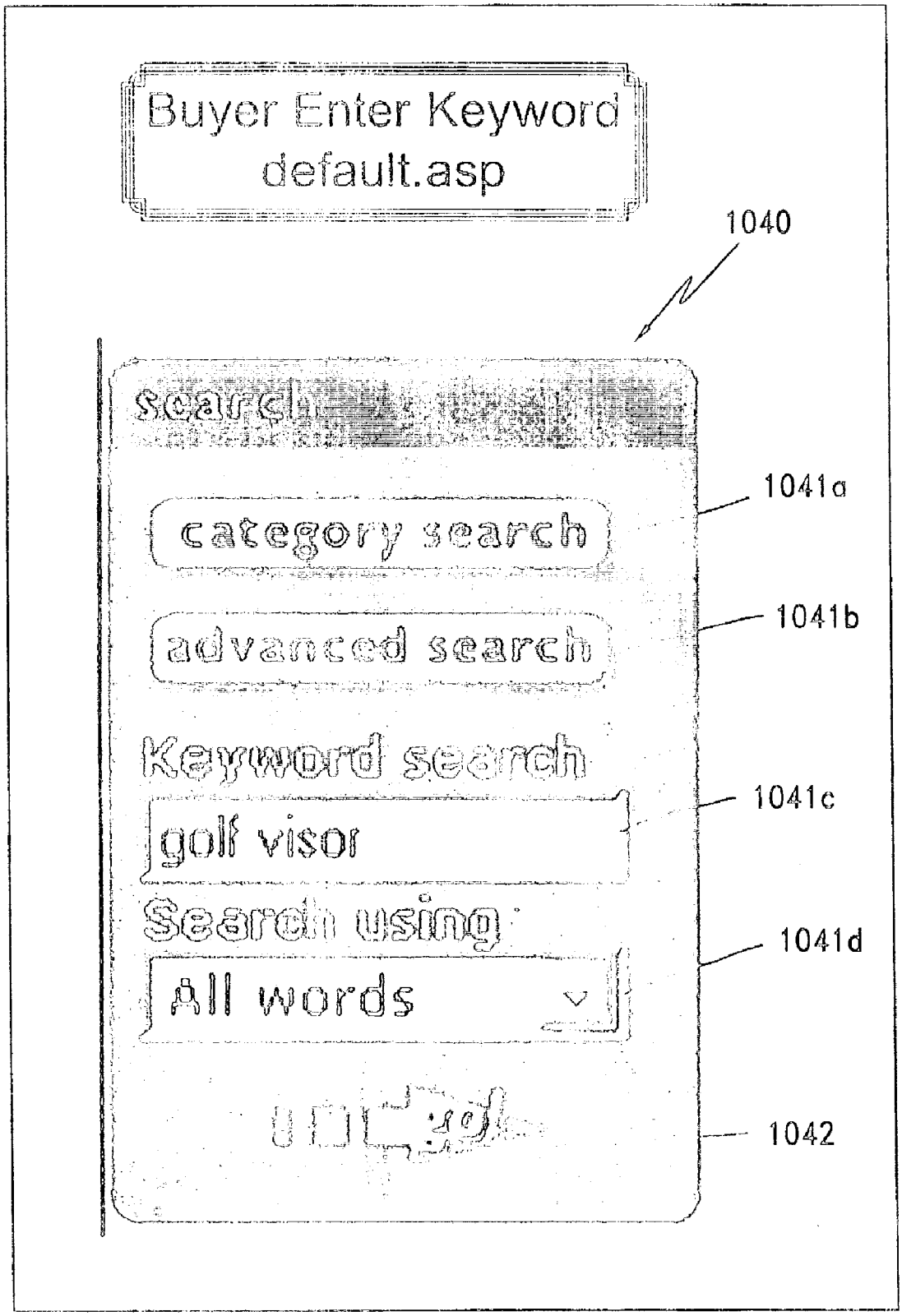

Buyer Enter Keyword
default.asp
1040
search
1041a
category search
1041b
advanced search
Keyword search
1041c
golf visor
Search using
1041d
All words
1042

FIG. 16A

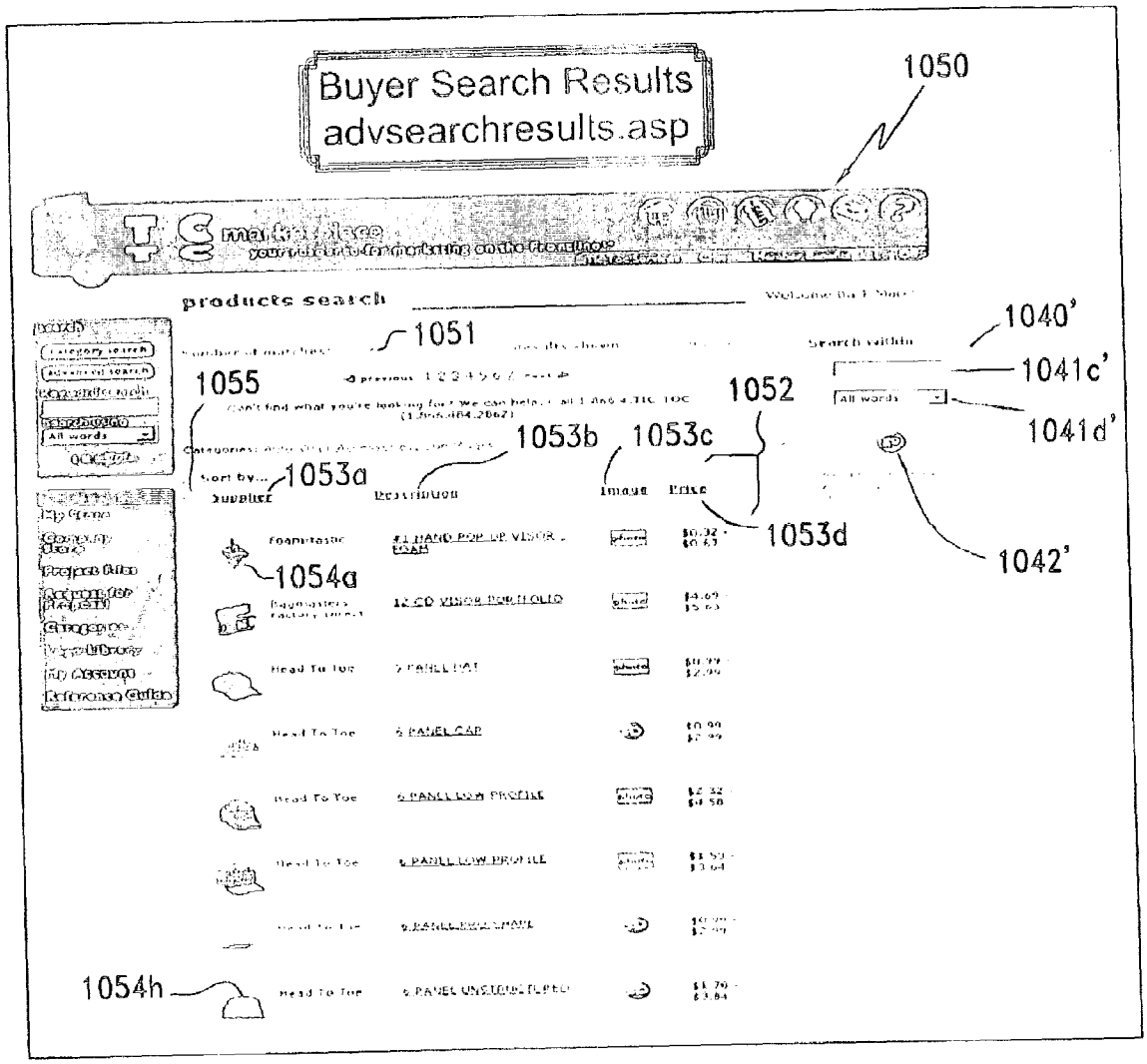

Buyer Search Results
advsearchresults.asp
1050
products search
1051
1055
1040'
1041c'
1041d'
1052
1053b
1053c
1053a
1053d
1042'
1054a
1054h

FIG. 16B

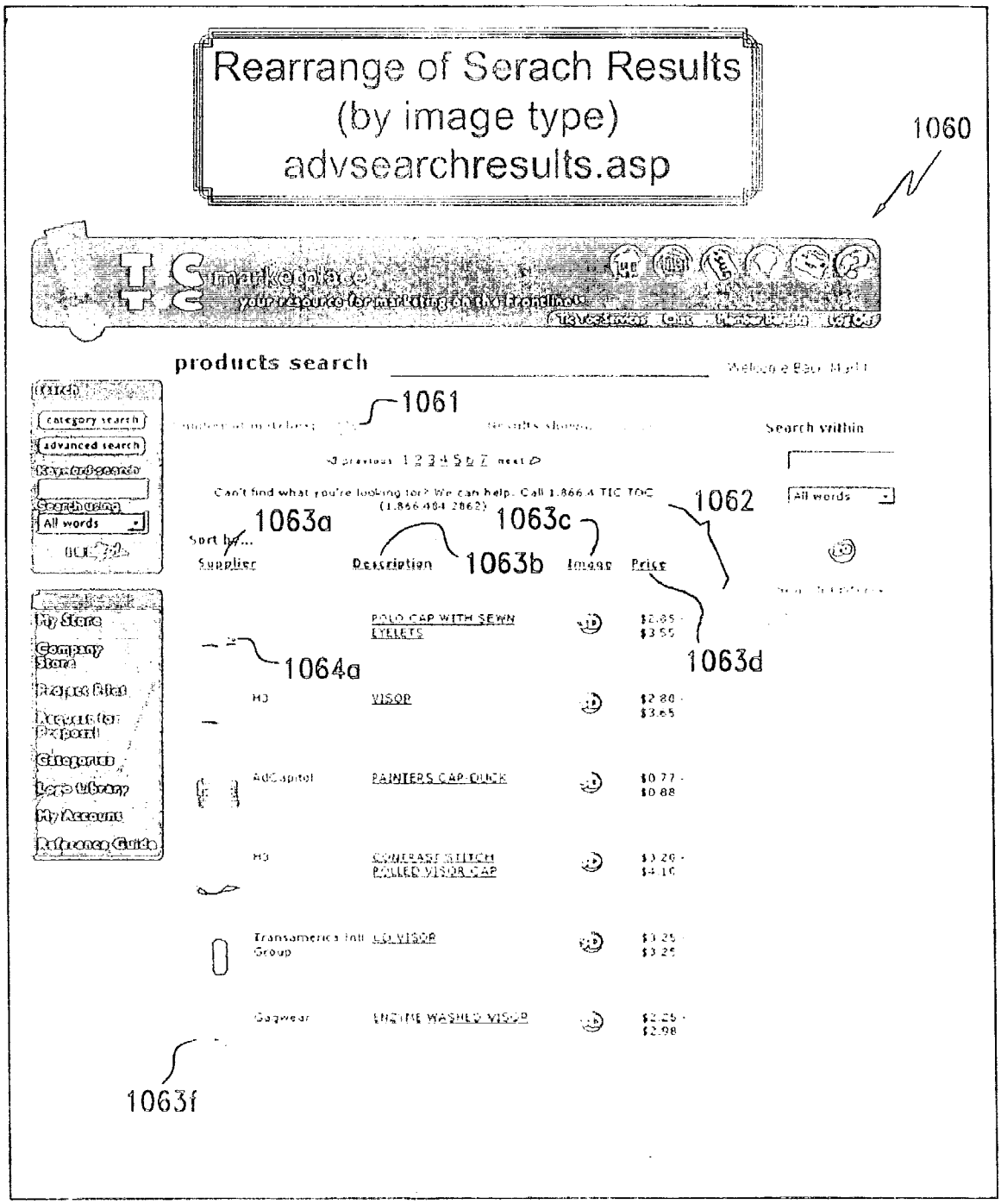

Rearrange of Serach Results
(by image type)
advsearchresults.asp
1060
products search
1061
Search within
1062
1063a
1063b
1063c
1063d
Supplier
Description
Image
Price
1064a
1063f

FIG. 16C

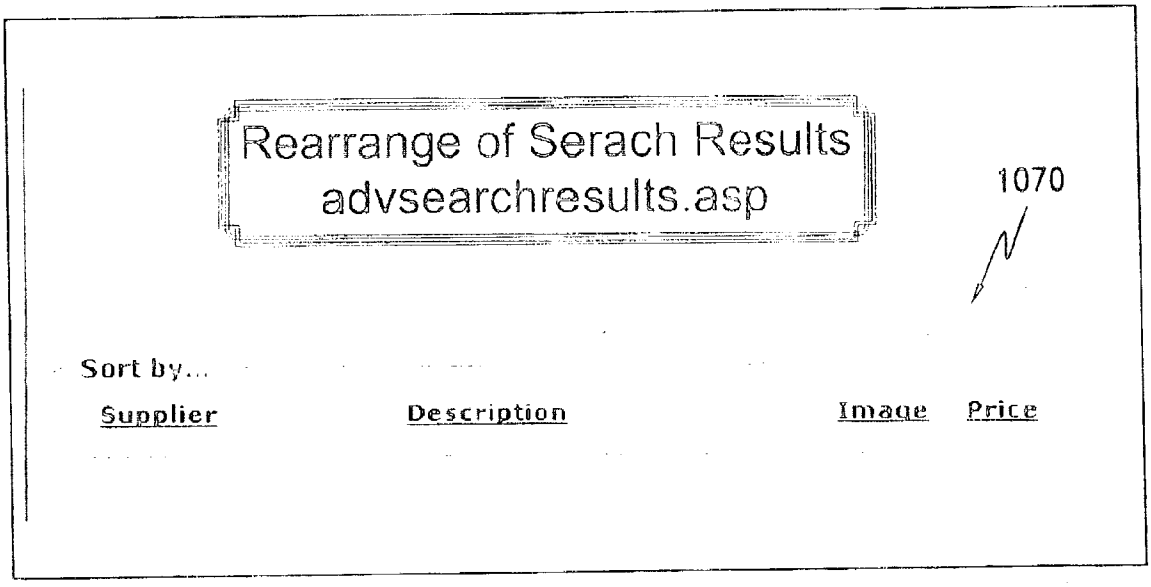

Rearrange of Serach Results
advsearchresults.asp
1070
Sort by...
Supplier
Description
Image
Price

FIG. 16D

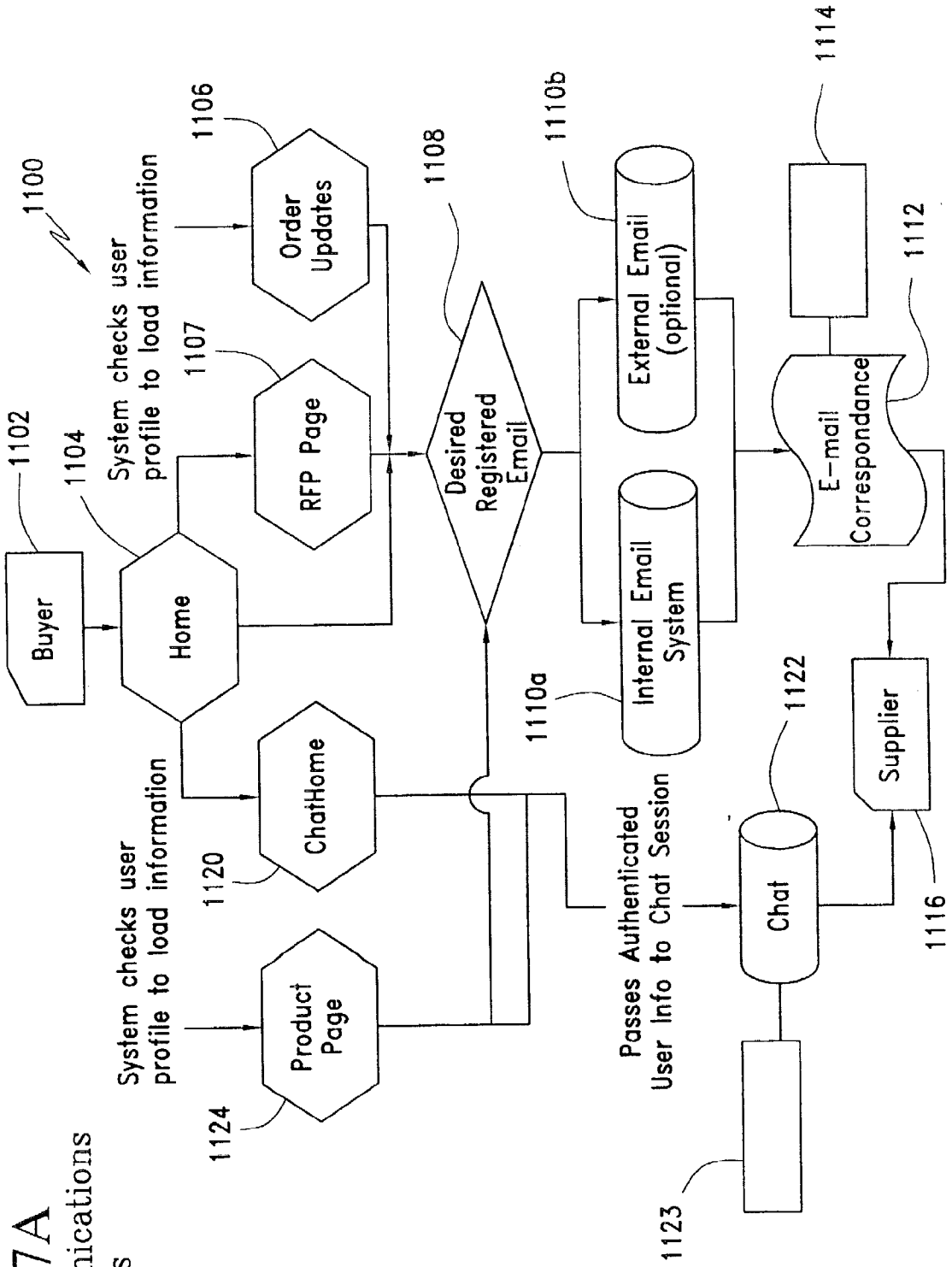


FIG. 17A

uyer Communications Process

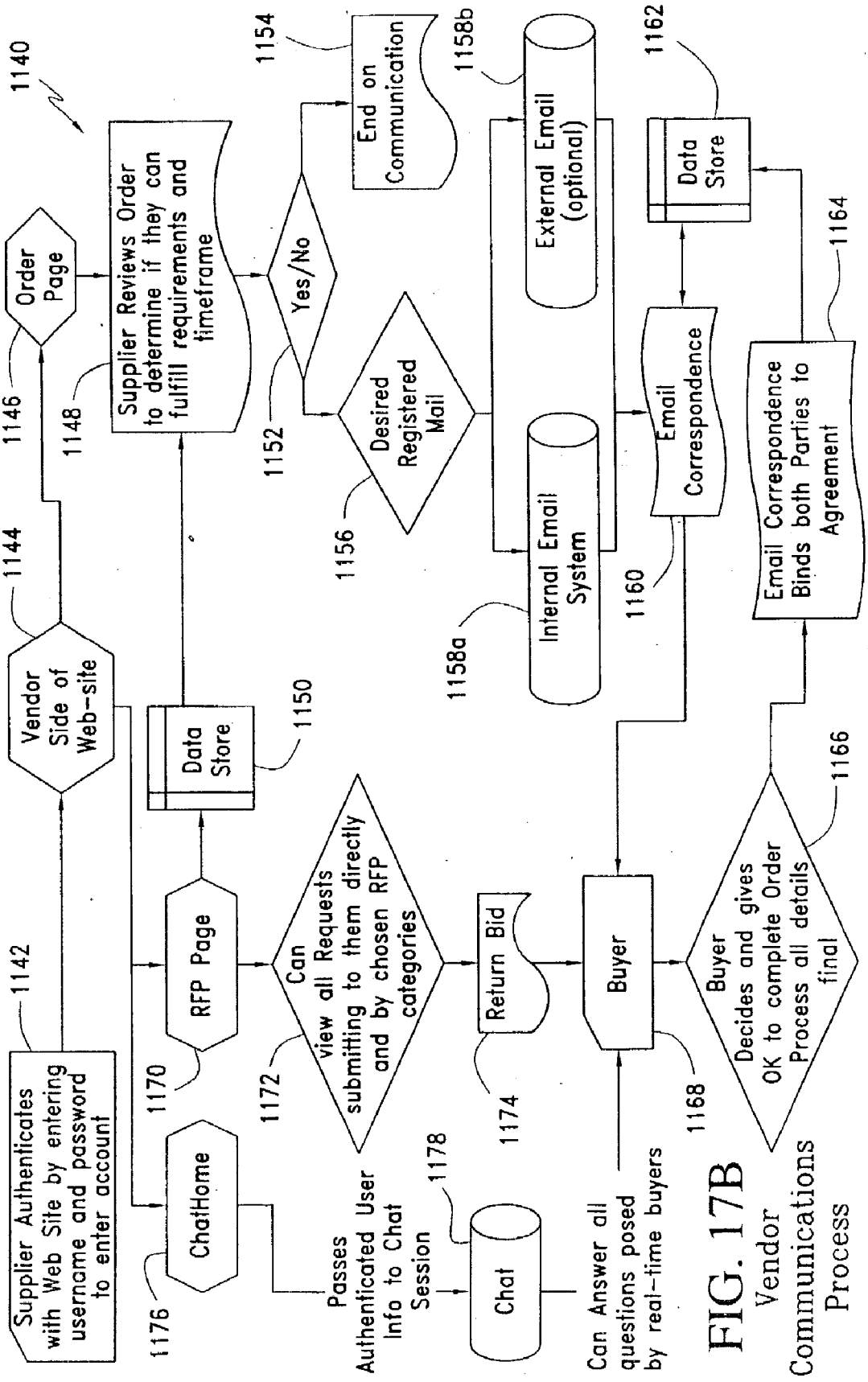


FIG. 17B
Vendor Communications Process

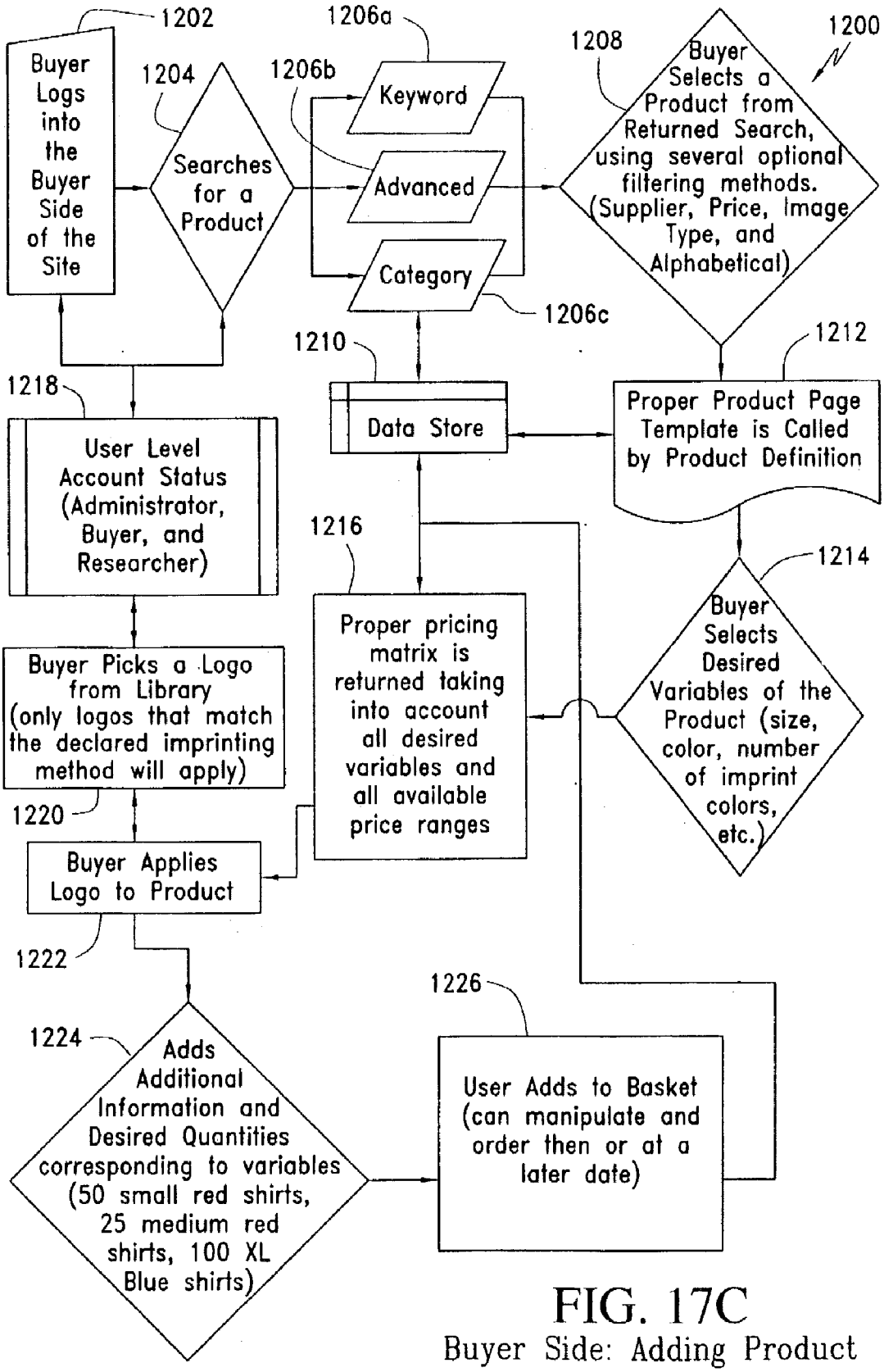


FIG. 17C
Buyer Side: Adding Product to Basket

APPARATUS AND METHOD FOR FACILITATING THE SELECTION OF PRODUCTS BY BUYERS AND THE PURCHASE OF THE SELECTED PRODUCTS FROM A SUPPLIER

RELATED APPLICATION

[0001] This non-provisional application is related to and depends for priority from U.S. Provisional Application No. 60/427,660, filed Nov. 19, 2002 in the names of Leonard Steven Haynes, Kevin Frederick Lippincott and William Craig Dunlap, entitled "APPARATUS AND METHOD FOR FACILITATING THE SELECTION OF PRODUCTS BY BUYERS AND THE PURCHASE OF THE SELECTED PRODUCTS FROM SUPPLIERS", and incorporated herein by reference.

FIELD OF THE INVENTION

[0002] This invention relates to systems and methods for conducting sales transactions involving the sale of items, e.g., products and/or services, involving a plurality purchasers and a plurality of suppliers of the items. In an illustrative embodiment of this invention, the system and apparatus are implement in a network or Internet environment. Such an embodiments have been popularly referred to as E-commerce.

BACKGROUND OF THE INVENTION

[0003] The advent of the Internet has given rise to E-Commerce, whereby buyers and sellers may offer goods and/or services for sale, select the goods and/or services to be purchased and to consummate the sale by arranging for the payment of the services and/or goods. The Internet comprises a vast number of computers and computer networks that are interconnected through communication links. The interconnected computers exchange information using various services, such as electronic mail, Gopher, and the World Wide Web ("WWW"). The WWW service allows a server computer system (i.e., web server or web site) to send graphical web pages of information to a remote client computer system. The remote client computer system can then display the web pages. Each resource (e.g., computer or web page) of the WWW is uniquely identifiable by a Uniform Resource Locator ("URL"). To view a specific web page, a client computer system specifies the URL for that web page in a request (e.g. a HyperText Transfer Protocol ("HTTP") request). The request is forwarded to the web server that supports that web page. When the web server receives the request, it sends that web page to the client computer system. When the client computer system receives that web page, it typically displays the web page using a browser. A browser is a special-purpose application program that effects the requesting of web pages and the displaying of web pages.

[0004] Currently, web pages are typically composed using HyperText Markup Language ("HTML"). HTML provides a standard set of tags that define how a web page is to be displayed. When a user indicates to the browser to display a web page, the browser sends a request to the server computer system to transfer to the client computer system an HTML document that defines the web page. When the requested HTML document is received by the client computer system, the browser displays the web page as defined by the HTML document. The HTML document contains various tags that control the displaying of text, graphics, controls, and other features. The HTML document may contain URLs of other web pages available on that server computer system or other server computer systems.

[0005] The World Wide Web or Internet is especially conducive to conducting commerce, commonly referred to as E-Commerce. Web Servers have been programmed to permit vendors to provide a wide array of products and services for sale over the Internet. A user, who is a potential purchaser, may browse one or more web sites, which provide lists of products or services for sale, much like a catalogue. A purchaser may preview these lists to select a desired product or services to be purchased. When the user has completed selecting the items to be purchased, the server computer system then prompts the user to enter information to complete the ordering of the selected items. This purchase generally deals with how and where the selected items may be delivered to the purchaser and how the purchaser will pay for the selected items.

[0006] E-Commerce has also been used to facilitate the distribution and purchase of promotional items such as clothing, writing utensils, and a variety of other goods and services. Typically, a marking such as a trademark, a logo or the like phrase may be added to a selected promotional product. For example, the buyer may select from a list or catalogue of products a particular product and then insert, superimpose or otherwise attach the selected marking to the product. One of the problems associated with the distribution and sale of promotional products and/or services is the difficulty in providing a representation of the promotional product with the selected marking superimposed thereon to the perspective buyer. Before the advent of E-Commerce, a promotional products distributor would physically superimpose the selected marking on to the selected product and forward that sample product to the perspective buyer, thus permitting the perspective buyer to preview the composite image before placing an order for a quantity of such customized products.

[0007] E-commerce has permitted a service to be marketed over the Internet that involves the superimposing of one image on another to permit the prospective purchaser to preview the composite image before buying. TOMAX USA-.com (www.tomaxusa.com/e-sample/) is an example of such a service, where a second image of a logo of a business, a company or an athletic team for example may by superimposed on a first image in the form of promotion merchandize such as a watch, clock, calculators or other electronics. Initially, a second image logo is forwarded to TOMAX. The logo may be in the form of a photograph, e.g., a black and white color separated artwork of the logo, and, in that form, would be forwarded by mail to TOMAX. Alternatively, the logo may be scanned and converted to a digital signal, before being formatted by Adobe Illustrator into an EPS format or by Adobe PhotoShop; the formatted signals are then transmitted to TOMAX USA.com. If E-mailed, an indication of the PMS color also needs to be transmitted to permit the logo to be reproduced at the processing site in its precise colors. At the processing site, the received image of the logo is converted back to a hard copy, before it is assembled with the selected promotional product and a photograph of the logo superimposed on the product is taken. In turn, the photograph is scanned and the converted,

and the rasterized image is transmitted as an Email attachment to the user's browser, where it may be previewed. TOMAX USA indicates that the superimposing process will require 60 hours or perhaps less, depending on workload. In addition, a security code number is transmitted with the superimposed image to the purchaser, while the superimposed image is also uploaded to the web site of TOMAX USA. The purchaser may use that security code to access on line the superimposed image from TOMAX USA's web site. Similarly, the purchaser may give that security code to another person, a customer of the purchaser for example, whereby the customer may also view the superimposed image from this web site. A drawback to the technique described above is that the superimposing is performed photographically and, as a result, requires a significant amount of time.

[0008] U.S. Pat. No. 6,334,853, assigned to the same assignee of this invention, describes an E-Commerce system comprising a client's system for one or more potential buyers, and at least one server to support the client's system or systems. The server includes at least first and second libraries for respectively storing first images of promotional goods, products and/or services, and markings, e.g., logos, trademarks or the like. The server is programmed to construct a first web page with a description of at least one of the promotional products, and a second web page with a description and/or an image of the marking to be superimposed on a product. The first and second web pages are downloaded to the client system, whereby the perspective buyer may browse the offered products and select one of the promotional products and one of the markings to be superimposed upon the selected product to provide a composite image. The composite image is in turn embedded in a third web page, which is downloaded to the client system, whereby the composite image may be displayed upon the client's system and the perspective buyer may preview the composite image before purchasing.

[0009] International Patent Publication No. WO 01/23989 describes an E-Commerce system for distributing promotional products, which may be used by the following entities: 1) a user (e.g., customer or buyer); 2) a distributor who may control the server; and 3) a supplier of the promotional goods and/or services. The distributor uses icons to display the promotional items, which are included in a view and sent to a user. By activating one of these icons, the user sends to the distributor a signal to display the different styles of the promotional products. The supplier may pay an additional fee to the distributor to have its promotional products more prominently displayed so that a user would be more inclined to order it. Further, the distributor can determine which supplier or suppliers will provide a particular promotional product. Further, a user sends to the receiver an order that includes an electronic file comprised of the promotional product and a marking. Then, the distributor combines the promotional item with the marking to create a representation of how the marking should appear on the promotional product. If the user has a further interest in the displayed promotional item, the user sends to the distributor a signal to display further information about the promotional product. Further, the distributor can determine which supplier or suppliers will provide a promotional product at a particular icon. If the user wishes to order a particular product it will input further details of the particular promotional product. As such details are input by the user, they are sent to the receiver, whereby the user can see how prices are changing as information is changed. In particular, the screen includes a view of a quantity section with various quantity levels that correspond to various prices. When the user determines the quantity of a particular promotional item that he or she desires, he or she will enter the proper quantity into the system. After the user has provided its authorization to the distributor, the distributor in turn sends order information to the supplier. Maintenance of the database used for a promotional items web site can be performed in part by the distributor, the supplier or both. Typically, the distributor will control the database but may allow limited access to the supplier. Both the distributor and the supplier may send an electronic signal to add or remove items from the database. When the order is placed, the distributor sends appropriate information to the suppliers. However, the user may not even know that different suppliers are being used. Because the ordering can be done over the Internet, it allows the order to move more quickly and be processed by the supplier.

[0010] The above identified International Publication notes the difficulty in facilitating a purchaser to find a particular promotional product due to the number of suppliers and promotional items that are available. Typically there are a large number of distributors and an even larger number of promotional items. Each distributor has at least one catalogue listing products and/or services which are selected by a distributor from a supplier and incorporated into the distributor's catalogue.

[0011] Various economic models are employed to compensate the various entities for their participation in the distribution and sale of promotional products and/or goods. One of the most common economic models is to permit the distributor to provide a mark up of the supplier's price; typically, such mark up may be fifty or more percent of the supplier's price, thus resulting in a significant increase in the price to a buyer. In the above noted International Application, there is described a system involving the buyer, the distributor, the supplier and an intermediary. The supplier and distributor in such a system can pay a commission or other fees to the intermediary based on the use (monitored by hits or central processing unit time) or by orders made using the system. In another embodiment, order information is sent to the distributor and the supplier. Alternatively, financial information for the order is sent by the intermediary to the supplier. When consideration is received by the supplier from the buyer, the supplier keeps it's share and pays a portion of the consideration to the distributor and another portion to the intermediary.

OBJECT OF THE INVENTION

[0012] It is an object of this invention to provide new and improved method and apparatus for facilitating the sale to any of a plurality of buyers of a large number of items supplied by a plurality of suppliers.

[0013] It is a further object of this invention to eliminate from the purchasing process any distributor or middle-man and their markup charges.

[0014] It is a still further object of this invention to provide apparatus and method that permits any of the plurality of buyers to communicate directly with any of the plurality of suppliers.

[0015] It is a still further object of this invention to carry out the purchasing process of this invention in a network and, in particular, an Internet environment whereby this invention's apparatus and method may automated for cost efficiency, speed of process and increasing significantly the number of items (products and/or services) that are readily available for sale to potential buyers.

SUMMARY

[0016] In accordance with these and other objects of this invention, there is disclosed a method of managing the sale of a plurality of items from a plurality of corresponding suppliers to at least one buyer, wherein the one buyer determines a description of the item to be purchased. The method enables each of the plurality of suppliers to store at least one catalogue of its items in a database and responding to a search request of the one buyer to identify any item in the catalogues stored in the database with a description that matches the item description of the buyer.

[0017] In a further aspect of the invention, there is disclosed a system for carrying out a transaction involving at least one item supplied by at least one supplier and potentially purchased by at least one buyer. Each of the one supplier and the one buyer has a terminal connected to a network. The system comprises at least one interface including a database and at least one server that is connected to the network and is programmed to provide a buyer web site to permit the one buyer to communicate over the network between the buyer's terminal and the interface. The server is further programmed to provide a supplier web site to permit the supplier to communicate over the network between the supplier's terminal and the interface, whereby one of the buyer and supplier may transmit a message related to the one item from its terminal to the interface and further transmit the message from the interface to the terminal of the other of the buyer and supplier.

[0018] In another aspect of this invention, there is described a method of constructing a searchable database that stores at least one catalogue of items that may be bought by at least one buyer and are supplied by at least one supplier. The method comprises the steps of the one supplier selecting which of its items that are to be included in its catalogue, the supplier attaching to each selected item a description of that item and, then, storing each item and attached description in a database. Thus the buyer is entitled to search the catalog of items stored in the database based on the descriptions of the items.

[0019] In a still further feature of this invention, there is described a method of managing a system to carry out transactions involving the purchase by each of a plurality of buyers of selected of a plurality of items, selected of the plurality of items being supplied by corresponding ones of a plurality of suppliers. Each of the plurality of buyers and each of said plurality of suppliers is assigned a unique ID. The system comprises a server and a database. First, the method initially obtains from each of the plurality of buyers and suppliers their unique ID, and receives and compares the ID of each of the plurality of buyers who seeks access to the system. If there is a match, the method grants to that buyer or supplier access to the system.

[0020] In a still further aspect of this invention, there is described a method of managing the selecting and purchasing at least one item by a buyer, wherein each of the plurality of distinct items is associated with a definition which defines the variables of its item, and then constructing a screen displaying the variables of the selected item in accordance with the definition of the selected item.

[0021] In another feature of this invention, there is disclosed a method of constructing a unique screen that displays a price matrix for at least one particular item. The item includes a definition of the variables associated with the item. The method of constructing comprises the steps of reiteratively changing each of the plurality of variables for each reiteration of each of the variables a corresponding price matrix dependent on the values of each of the plurality of variables for that reiteration. Then, the values for each of the corresponding variables and the corresponding price matrix are stored in a database for each reiteration. Finally, a screen is construed for a set of variables of particular values by accessing the database to determine the price matrix corresponding to the set of variable of the particular values. The screen includes the set of values for the variables and the corresponding price matrix.

[0022] In a still further aspect of this invention, a database structure is provided to facilitate communications over a network between any of a plurality of suppliers of items and any of a plurality of buyers of the items. The database structure includes a buyers' memory structure comprising a plurality of sections, one section for each buyer for storing an ID unique to its buyer and the orders initiated by that buyer, and a supplier memory structure comprising a plurality of sections, one for each supplier for storing an ID unique to that supplier and at least one catalog of the items of each supplier.

[0023] In another feature of this invention, a method is disclosed for controlling communications over a network between at least one supplier of at least one item and at least one buyer to whom that one item is offered for sale. The method comprises the steps of receiving and storing a message in a memory from the buyer that relates to the item and includes an identification of the supplier that supplies the item, and searching the memory for all messages with an identification that matches that of the supplier of the item.

[0024] In another feature of this invention, a method is disclosed for operating a searchable database to facilitate at least one buyer to select a certain one of a plurality of items that matches a description of the item sought by the one buyer, wherein the plurality of items is variously supplied by a plurality of suppliers and each supplier supplies a set of its items. The method includes the steps of storing a plurality of files in the searchable database, wherein each of the plurality of files comprises an identification of at least one item, a description of the one item and an identification of the particular supplier that supplied the one item. Next, each of the plurality of buyers is enabled to search the plurality of files stored in the searchable database for an item whose description matches the description of the one buyer and to withdraw from the database any file with an item that matches the buyer's description.

[0025] In a still further aspect of this invention, a method is described for constructing a searchable database to facilitate each of a plurality of buyers to select certain ones of a plurality of items that matches an item description of each buyer. The plurality of items is variously supplied by a

plurality of suppliers, and each supplier supplies a set of its items. The constructing method includes the steps of constructing for each of the plurality of items an identification of the one item, a description of the one item to be matched with the item description of one of the plurality of buyers, and an indication of the particular supplier that supplied the one item. Next, the construction step is repeated for each item of the set of items for each supplier. Then, the files are stored for a particular supplier in a distinct section of the database.

[0026] In a still further aspect of this invention, a method is described for controlling the communications over a network between at least one supplier of at least one item and at least one buyer to whom that one item is offered for sale. The method comprises the steps of receiving a first message from the buyer that relates to the one item and includes an identification of the supplier that supplies the one item, storing the first message in a memory and responding to the storing of the first message in the memory to send a second message to the supplier identified by the supplier identification to indicate that the first message has been stored in the memory.

BRIEF DESCRIPTION OF THE DRAWINGS

[0027] The forgoing objects and advantages of the present invention may be more readily understood by one skilled in the art with reference being had to the following detailed description of a preferred embodiment thereof, taken in conjunction with the accompanying drawings wherein like elements are designated by identical reference numerals throughout the several views, and in which:

[0028] **FIG. 1** is a functional block diagram of the arrangement of servers (computers) and databases for storing the data involved in the E-Commerce system of this invention and which is programmed to permit bi-directional communication between selected of the buyers and selected of the suppliers;

[0029] **FIG. 2** is a flow diagram illustrating how the E-Commerce system of **FIG. 1** is programmed to permit any of the users to identify a particular product and/or service from any of the suppliers, to purchase same and to arrange for payment of such purchase;

[0030] FIGS. **3A-3W** are respectively screens generated by the E-Commerce system of **FIG. 1** and downloaded to the terminal of a particular buyer;

[0031] FIGS. **4A-4I** are screens generated by the E-Commerce system of **FIG. 1** and downloaded to the terminal of a particular supplier;

[0032] **FIG. 5** is a flow diagram that illustrates how new items are added to the catalog(s) of a selected supplier and stored in a data warehouse as shown in **FIG. 1**;

[0033] FIGS. **6A-6F** are screens generated by the E-Commerce system of **FIG. 1** and are used in the course of carrying out the process shown in **FIG. 5** to add new items to the catalogs that are stored in the data warehouse;

[0034] **FIG. 7** is a flow diagram that illustrates how a previous entered catalog may be edited: FIGS. **8A-8D** are screens generated by the E-Commerce system of **FIG. 1** and are used by the process shown in **FIG. 7** to edit the items that were previously added to the catalog(s) of a particular supplier and stored in the data warehouse;

[0035] **FIG. 9** is a flow diagram that illustrates how a buyer select and upload a marking to be combined with a selected item:

[0036] FIGS. **10A-10C** are screens generated by the E-Commerce system of **FIG. 1** and used by the process shown in **FIG. 9** to facilitate a buyer to select and upload a marking to be combined with a selected item;

[0037] **FIG. 11** is a flow diagram that illustrates how a buyer can search the items stored in the data warehouse by category;

[0038] FIGS. **12A-12D** are screens generated by the E-Commerce system of **FIG. 1** and are used by the process shown in **FIG. 11** to facilitate a buyer to search the items by category;

[0039] **FIG. 13** is a flow diagram that illustrates how a buyer can carry out an advance search of the items stored in the data warehouse;

[0040] FIGS. **14A-14D** are screens generated by the E-Commerce system of **FIG. 1** and are used by the process shown in **FIG. 13** to conduct an advanced search of the items;

[0041] **FIG. 15** is a flow diagram that illustrates how a buyer conducts a keyword search of the items stored in the data warehouse;

[0042] FIGS. **16A-16B** are screens generated by the E-Commerce system of **FIG. 1** and are used by the process shown in **FIG. 15** to conduct a keyword search of the items;

[0043] **FIG. 17A** is a flow diagram that illustrates a process for the buyer to variously communicate with a selected supplier;

[0044] **FIG. 17B** is a flow diagram that illustrates a process for the supplier to variously communicate with a selected buyer; and

[0045] **FIG. 17C** is a flow diagram that illustrates a process for the buyer to select a particular item and to generate a template for that item including the price matrix associated with the item.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT OF THE INVENTION

[0046] Referring now to the drawings and in particular to **FIG. 1**, there is shown an E-Commerce system **10**, which is programmed to permit any of a plurality of users to select the desired products and/or services of a particular supplier, to receive information about at least one product and/or service, to purchase the selected product and/or service and to effect payment therefore. The E-Commerce system **10** is connected via an information communication network **12** to a terminal **16** of a buyer and to a terminal **14** of a vendor or supplier of the products and/or services. Though only a single terminal **14** is shown for a vendor, it is appreciated that the system **10** may be connected to a plurality of such vendor terminals **14**. Likewise though only a single buyer terminal **16** is illustrated in **FIG. 1**, it is appreciated that the system **10** may be connected to a plurality of such buyer terminals **16**. In an illustrative embodiment of this invention,

the system **10** may be coupled to a large number of vendors and an even larger number of buyers. It is contemplated that tens of thousands and more users may be so coupled and that thousands of vendors or suppliers may be so coupled to the system **10**. The E-Commerce system **10** of this invention differs from those systems described above, in that the system **10** of this invention is adapted to operate with not only a different set of entities, but also carries out a different economic model than those systems described above. As described above, the prior systems were programmed to interact with a buyer, a supplier or vendor and a distributor. The system **10** of this invention does not operate in conjunction with a distributor in the sense as described by the systems above. Rather there is included in this system a vendor or supplier, a buyer and a service provider, which primarily acts to service the E-Commerce system **10** of this invention. In one embodiment of this invention, service providers of this invention are compensated by a percentage of the value of the purchases made by the buyers. In particular, the E-Commerce system is programmed to establish an interface between at least one buyer and at least one supplier of the products and/or the services, whereby a bi-directional transmission of data is established between the one buyer and the one supplier. Such an interface permits a buyer to search a catalogue of products and/or services of a particular supplier, select particular products and/or services for purchase, facilitate the purchase of the particular products or services, provide financial information to facilitate the buyers providing the supplier with financial information and effect payment to the supplier, authorize the purchase of the selected products and/or services, and provide an indication of the status of the current transaction.

[**0047**] As shown in **FIG. 1**, each of the buyers' terminals **16** and each of the vendors' or suppliers' terminals **14** is coupled to a web server **20**, which in one illustrative embodiment of this invention may take the form of a Microsoft Internet information server. In particular the server **20** is programmed to manage a buyer site **22***a* and a vendor or supplier site **22***b*. In particular, the buyer site **16** generates and transmits certain web pages or screens to a selected one of the buyer terminals **16**. The buyer screens are shown in **FIG. 3** and facilitate, in a general sense, each buyer to conduct a search for at least one, particular product and/or service, to obtain if needed further information about the preliminarily chosen product or service, to combine with a further marking such as a trademark, logo or the like if needed, and to place an order, which is transmitted through an interface to that vendor of the selected product or service.

[**0048**] The vendor site **22***b* is programmed to generate a plurality of web pages or screens as shown in **FIG. 4** that are particularly adapted to display information to the vendor, whereby each vendor may view this information upon it's terminal **14**. Such information includes generally information about the order placed by a buyer for a particular product or service of that vendor. Each of the buyer site **22***a* and vendor site **22***b* is programmed to provide security for the information that is input and output to the Internet information server **20**. In particular, each buyer and each vendor is assigned a password, which must be entered before that buyer or that vendor is permitted access to the E-Commerce System and, in particular, to the Internet information server **20**. The Internet information server **20** further includes a filter **24**, which may be implemented in an illustrative embodiment of this invention by a commerce server ISAPI of Microsoft. The filter **114** is programmed to functionally track the transmissions of messages between a buyer at it's terminal **16** and a vendor or supplier at it's terminal **14**. The filter **24** further implements the security of the system by checking the passwords of each of the buyers and vendors, and authenticates these passwords before permitting either the buyer or the vendor access to this system **10**. The filter **24** further includes a retail site **26***a*, a site for customizing active server pages (ASP), and an interface site **26***c*. In particular, the retail site **26***a* is programmed to connect each buyer through its terminal **16** to the buyer's homepage **200** as shown in **FIG. 3A**. In an illustrative embodiment of this invention, a screen for each of the buyers may be generated from a common template, which is personalized by embedding in the template data and information which is characteristic of a particular buyer. In an illustrative embodiment, the interface site **26***c* may be implemented by a BizDesk@server 2000 of Microsoft and is programmed to connect each vendor or supplier to it's own web page or site. The web page for each vendor is generated from a common template which is programmed with data and information characteristic of it's vendor. The programmed functionality of the block **26***b* implemented by the use of Active Server Pages (ASP) each of the buyer screens as shown in **FIGS. 3A through 3W** and the vendor screens as shown in **FIGS. 4A through 4I** without the time consuming construction of a web page by writing code in the HTML language as would be a common way of providing such screens. In one illustrative embodiment of this invention, there are approximately 100 ASP pages, which are used to generate screens for different purposes. For example, each vendor has a catalogue of products. A screen for each of these products is generated by populating a template with data from an ASP page. In this fashion, it is not necessary to generate a web page for each product of each vendor, thus reducing significantly the time and labor costs of generating these web pages. Further, there is an ASP page for each of the suppliers and buyers, the homepage, and a set of screens to permit each buyer and each supplier to send and to receive emails. Further, an ASP page is used to generate screens that are used to carry out the customizing and order functions of this system **10**.

[**0049**] The code for these ASP pages is stored and accessed in a data warehouse **36** under the control of a database server **34**. In an illustrative embodiment of this invention, the SQL Server 2000 technology of Microsoft and a customized Commerce Server 2000 of Microsoft may be employed to implement the data warehouse **36** and the database server **34**. The code carried by the ASP pages is stored in the data warehouse **36**. In other words, all data associated with the buyers and vendors is stored in the data warehouse **36**. In particular, the data stored in the warehouse **36** includes the identification for each of the buyers and suppliers that has logged onto the E-Commerce System **10**. Also included are all of the catalogues for each of the suppliers. These catalogues include pictures of each of the products, prices for each of the products, written descriptions of the products, the software necessary to display the pictures in either two or three dimensions, data indicative of the various characteristics of the products, and the underlying data that enables the generation of price matrixes. The generation of price matrixes requires a significant amount of data. In one illustrative embodiment of this invention, a screen for a single product will need code to accommodate

seventeen hundred variations of that product. If that product were for example a shirt, the variations would include color, the pattern of the cloth from which the shirt is made, the various sizes in which the shirt may appear, the type of imprintings that may be made upon the shirt, and the different prices for different numbers of shirts. With such a capability, a screen may be generated with a price matrix that is dependent upon each of these variants or variations. It is appreciated that even if one of these characteristics of the shirt is changed, that there will be a resulting change in it's price matrix.

[**0050**] A server **30** is connected to an Internet information server **20** and is programmed to control the purchasing of the products and/or services from the suppliers. In an illustrative embodiment of this invention the server **30** may take the form of a Microsoft Commerce Server 2000. In particular, the server **30** captures a wide range of commerce information, e.g., the purchasing of the various products and/or services of particular buyers and transmits such data to particular suppliers at their terminals **14**. In addition, the server **30** is programmed to track the accessing by a particular buyer of a particular product web page within the catalogue of a particular supplier. In addition, the server **30** enables the E-Commerce System **10** to be scalable, whereby the system **10** may accommodate and service tens of thousands (or more) users and at least thousands of suppliers.

[**0051**] The database server **34** is connected to the server **30** to facilitate the bi-directional transmission of data there between. In turn, the database server **34** is coupled to input data into the data warehouse **132**. As described above, the coding for the ASP pages is stored in the data warehouse **36** and, in particular, the code for the pages associated with the buyer screens as shown in **FIG. 3** and the supplier or vendor screens as shown in **FIG. 4**, as well as the catalogues of each of the suppliers are stored in the data warehouse **36**. It is understood that such storage enables a buyer to search the products and/or services that are contained in all of the catalogues of all the suppliers and to selectively purchase at least one product and/or service from a particular supplier. In an illustrative embodiment of this invention, the database server **34** and the data warehouse **36** may take the form of a Microsoft SQL Server 2000; in particular, the database server **34** may take the form of a Customized Commerce Server 2000 database.

[**0052**] Further, the E-Commerce System **10** includes a set of files **38***a-c*, which are connected to receive data from the Internet information server **20**. In particular, the files **38** track the transmission of data between the suppliers and the vendors. In particular, the files **38** collect data to provide a history of the activity of the buyers and, in particular, to provide a history of the transactions of the buyers to purchase certain products and/or services. In an illustrative embodiment of this invention, such files **38** may be used to develop a profile of the particular preferences of each of the buyers. The files **38** are connected to the data warehouse **36**, whereby traffic data of the buyers and/or suppliers may be stored therein.

[**0053**] The E-Commerce System **10** also includes an active directory **32**, which is connected to the server **30** in a manner to facilitate the bidirectional transmission of data there between. In particular, the directory **32** accumulates and stores the passwords of each of the buyers and/or suppliers associated with the system **10**. The active directory **32** is programmed to authenticate each of the system's buyers and sellers, before access to the system **10** is granted to any buyer and/or seller. In particular, this authentication is carried out by asking each buyer or supplier, prior to access to the system **10**, to enter it's password, which is transmitted via the Internet information server **20** and the server **30** to the active directory **32** and is there compared with the previously entered passwords of the authorized buyers and/or suppliers. If there is a match with a previously stored password, then an authorization signal is transmitted back via the server **30** to the Internet information server **20**, whereby the user seeking access to the system is authorized.

[**0054**] Further, the E-Commerce System **10** includes a server **42**, which provides an email capability for the system **10**, whereby any of the buyers may transmit emails from their terminals **16** to any of the suppliers at their terminals **14**. As shown in **FIG. 1**, the server **42** is coupled via the server **30** and the Internet information server **20** to each of the buyers and it's terminal **16** and to each of the suppliers and it's terminals **14**. Further, the server **42** is also coupled to a further server **46**, which will be described below. In particular, the server **42** may in an illustrative embodiment of this invention take the form of a Microsoft Exchange 2000 Server and provides an email engine to sort and route emails over the Internet **12** between selected of the buyer terminals **16** and the vendor terminals **14**.

[**0055**] The server **46** provides a connection to another, external system **48**. In an illustrative embodiment of this invention, the system **48** may be directly connected to a database of each of the suppliers' terminals **14**. In an illustrative embodiment of this invention, the server **46** may take the form of a Microsoft BizTalk Server 2000. In operation, the catalogue of each of the suppliers may be stored in a memory or database of it's terminal **14**. Though not shown in **FIG. 1**, the external system **48** may be coupled to a terminal **14** of a selected supplier, whereby it's catalogue of products and/or services may be downloaded to the system **10** and, in particular, applied to the server **46**, which in turn transmits such data via the database server **34** to the data warehouse **36**, where the product and/or services catalogue of the suppliers are stored.

[**0056**] Referring now to **FIG. 2**, and **FIG. 3**, there is respectively shown a flow diagram of the operation of the E-Commerce System **10** as discussed above with respect to **FIG. 1**, and the web pages which are to be displayed at the terminal **16** to the buyer. Initially a buyer by use of it's terminal **16** (**FIG. 1**) brings up upon it's display a system homepage **200**, as shown in **FIG. 3A**. The system homepage **200** permits the buyer access to the system **10**. In particular, the buyer is prompted to click on a button **201**. If that buyer is new to the system **10**, the new buyer is registered and a password chosen by the buyer and stored in the files **38** (**FIG. 1**). If the buyer has previously registered in the system **10**, the buyer enters it's user name and password in the boxes **202** and **203** respectively, before actuating the "go" button **204**. The system homepage **200** includes a further button **205**, which a new user may actuate to receive a demonstration of the operation of the E-Commerce System **10**.

[**0057**] Upon actuation of the button **205**, the program **100** (**FIG. 2**) moves to step **104**, wherein the web page **210** is displayed. The page **210** prompts a buyer to initiate a search

for a particular product or service among those stored in the data warehouse **36** (**FIG. 1**). In particular, the buyer has an option as to the type of search that he/she would like to conduct. The web page **210** bears a menu **211**, which has a plurality of boxes which the buyer may click on to initiate that particular type of search. In particular, the menu **211** includes a box **211***a* for a category search, a box **211***b* for an advanced search, a box **211***c* for a key word search, and a box **211***d* for entering words that will describe the type of product and/or service desired. After the buyer has actuated one of these boxes, he/she may then actuate a "go" box **211***e*, whereby the program **100** moves to one of the searches that are performed in steps **106***a, b* and c. In particular, upon actuating the box **211***a*, the program **100** will move to the step **106***b*, whereby the buyer is permitted to search for a particular product and/or service of a particular category as will be described below in detail with respect to FIGS. **11**, and **12**A-**12**D. Upon actuating the box **211***b*, the program **100** will move to step **106***c*, whereby an advanced search will be conducted as will be explained in detail below with respect to FIGS. **13**, and **14**A-**14**D. Similarly, when a, buyer actuates the box **211***c*, the program **100** moves to step **106***a*, whereby a key word search is conducted as will be described below in greater detail with respect to FIGS. **15**, **16**A-**16**D.

[**0058**] Further, the homepage **210** bears a menu **223** that functions as a tool box whereby a number of functions may be carried out. The tool box **223** includes a plurality of buttons **223***a*-g, select of which may be actuated by the buyer to effect a corresponding function. In an example where the buyer is an employee of a store, the buyer may actuate the My Store box **223***a* to select a number of products for sale to the regular customers of that store. In an example where the buyer is an employee of a company, the buyer may hit the "Company Store" box **223***b*, to select certain products and/or services for sale to the employees of the company. In particular, such selected products and/or services may be customized by placing the logo or trademark of that company on the selected promotional products. If the buyer actuates a "Project Files" button **223***c*, the selected products and/or services may be put into a file in the nature of a "shopping cart" for sale to the buyer. If the buyer hits a "Request for Proposal" button **223***d*, the buyer causes a message describing a particular product to be transmitted to selected suppliers with a request for bid from each of those designated suppliers for the particular product. Upon receipt of the responses from the suppliers, the buyer then may select the most advantageous response. If the buyer actuates a "categories" box **223***e*, the supplier may select which categories that may be used by either the buyer or the supplier to search for a particular product. If the buyer actuates a "Logo Library" box **223***f*, the buyer initiates a process for uploading particular markings such as a trademark, logo or the like into a dedicated library that is established within the data warehouse **36** (**FIG. 1**). Further, the buyer may set limitations upon the use of these markings as by example, the markings are limited for use by a selected group of people, the employees of a particular buyer, or may authorize unrestricted use of certain markings. Further, if the buyer hits a "My Account" box **223***g*, the buyer may access it's account. Illustratively a buyer's account may include a profile of the buyer, the previous history of orders placed by the buyer including the status of the orders and designates others who may have access to the buyer's account. For example, if the buyer is a company, it's administrator (and others) may be given access to the employer's account. If a buyer actuates a "Reference Guide" box **223***h*, the user is given access to a reference section, which may include (for example) the definition of terms that are used by the suppliers, descriptions of the processes that are carried out by the E-Commerce System **10**, a glossary of industry terms, a glossary of Internet terms and the like.

[**0059**] Still referring to **FIG. 3**B, the user homepage **210** further includes a menu **219** that permits a particular user to monitor its emailing activity and, in particular, includes a box **219***a* for indicating the number of the users' messages, a box **219***b* for indicating the number of responses to the buyer's request for purchases, and a box **219***c* for the number of order updates that the buyer has made. Further, the page **210** further includes a button **216** that may be actuated by the buyer to permit the buyer to browse promotional products, a button **217** actuated by the buyer to browse premium products, a button **218** actuated by the user to view the various services of the suppliers, a button **220***a* that may be actuated by the buyer to receive a guided tour of the E-Commerce System **10** and a button **220***b* that may be actuated by the buyer to permit the display of various notices and information about the E-Commerce System **10**. Further, there is a tool bar which comprises buttons **221***a*-**221***f* to facilitate the buyer by it's service provider to implement the functionality of these buttons. The page **210** has a second tool bar, which includes a button **222***a* that may be actuated by the buyer to enter a chat room, a button **222***b* that may be is actuated to cause the display of the benefits that are available to the buyer by using the E-Commerce System **10**, and a button **222***c* that permits the buyer to log off of the system **10**.

[**0060**] If the buyer clicks on the category search button **211***a* (**FIG. 3B**), the program **100** moves from step **104** to step **106***b* as shown in **FIG. 2**, wherein a category search web page **210** is displayed on the buyer's terminal **16** as shown in **FIG. 3B**. In a category search, the buyer may actuate a browse button **216** to review a plurality of promotional items, a browse button **217** to inspect a series of premium products, and/or a browse button **218** to review the services of identified suppliers. Also see **FIGS. 11 and 12**A-12D for a more detailed description of a category search.

[**0061**] On the other hand, if the buyer actuates the advanced search button **211***b*, the program **100** moves from step **104** to step **106***c* as shown in **FIG. 2**. In the advanced search **106***c* as will be explained below with respect to **FIG. 3C, a** web page **230** is displayed on the buyer's terminal **16**, which facilitates the buyer to enter words descriptive of the product and/or service desired to be purchased. The advanced search **106***c* may be carried out by developing the description of the various desired characteristics of the product and/or by identifying the supplier of the product or products upon which a licensee will permit the placement of its marking, trademark, logo or the like. In particular, the web page **230** includes the following boxes **233***a*-n for receiving respectively a buyer's input as to its key word, the quantity of products and/or services to be used, the price per piece, the SKU, colors in logo, a 3D image, blank goods, decorator service, custom products, supplier, materials, events and themes. Further, there is included a license name block **234**, whereby the buyer may enter a particular marking, licensed name, logo, trademark or the like. The search

by description will then proceed to identify those products and/or services, which the licensor of the name has licensed or otherwise authorized to be used with it's marking. For example, the licensor Coors has authorized it's trademark, "Coors", to be used with a limited number of products, which the search would find and identify. A more detailed description of the advanced search is provided below with respect to **FIGS. 13 and 14**A-**14**D.

[**0062**] In a similar fashion, the buyer may actuate the key word search button **211***c* **(FIG. 3B)** to move the program **100** from step **104** to step **106***a* **(FIG. 2)**, whereby a search of products and/or services according to the entered key words is carried out as will be described below in detail with respect to **FIGS. 15 and 16**A-**16**D.

[**0063**] After any one of the key word search **106***a*, the category search **106***b* or the advanced search **106***c* **(FIG. 2)** is selected, the selected search is conducted through the products and/or services stored in the data warehouse **36 (FIG. 1)** and one or more products and/or services are identified. The buyer selects from the drop down screen one of the displayed products about which further information is needed before purchasing. The identified items of each of the searches **106***a, b* and c are displayed in step **108** on a dropdown screen (not shown) of it's web page **240** as shown in **FIG. 3D**. Upon clicking on the selected product, the program **100** goes to step **108**, wherein a product details web page **240** is displayed on the buyer's terminal **106**. Next in step **110***a*, a detailed description **241** and a relatively large image **242** of the selected product are displayed. As will be explained, the image **242** is sufficiently large to permit the customer to customize it. Next information concerning the selected product and/or service is collected in the data warehouse **36** and is displayed as the web page **240** as shown in **FIG. 3D** on the buyer's terminal **16**. In particular, the web page **240** provides a written description **241** of the selected product, e.g., a TomCat bicycle. Further, an image **249** of the selected product **249** may be displayed within a window **242**. The buyer can click on a print sample box **243**, whereby a printout of the image **249** may be obtained.

[**0064**] The product details web page **240** further includes an extra charges button **244***a*, which the buyer may actuate to obtain an indication of extra charges that may be involved in the purchase of the product **249**. Further, the web page **240** may include a series of step buttons **244***b, c, d* and e, which may be actuated by the buyer to control some attribute of the product **249** or to initiate the placement of an order for the product **249**. In particular, the buyer may actuate the button **244***b* to select a particular variant of the product **249**. Next in step **112**, the buyer may actuate the button **244***c* to initiate the customizing of the product, e.g., to select and place a marking or logo on the product **249**. In particular, step **112** customizes the product viewed in the customization image or window **242** by the use of the tool bar **245**. The tool box **245** facilitates the superimposing of a licensed name or marking upon the product image **249** and, in particular, positioned by the buyer in a desired relationship with respect to the product. It is appreciated that the licensed name or mark as obtained by entering a license name into block **234** may be the marking that is positioned or superimposed on the product **249**. In particular, there is a zoom box **245***a*, which may be actuated to zoom in on a particular part of the product **249**, a rotate button to rotate the image **249**, and a move box **245***c* whereby the user can move or drag the marking to a particular location and orientation with respect to the product image **249**. After the product has been selected and its characteristics defined, the button **244***d* initiates the preparation of the details of an order for that product and/or service. In particular, step **110***c* generates a product image **249**, which may be either a two-dimensional or a three-dimensional view of the selected product **249**. Finally, actuation of the button **244***e* permits the desired quantity of the product to be determined and the order to be finalized and sent. Once the box **244***e* is clicked on by the buyer and the buyer inputs via its terminal **16** the number of desired products, step **110***b* generates a price list or matrix **251**, as shown in **FIG. 3**E, to reflect the range of quantities for each of a plurality of prices. Still further, the product details web page **240** includes an array **246** of boxes **246***a-h* for receiving the name and characteristics of suppliers that may be entered into the boxes. In particular, the price matrix places in the quantity column a range of the numbers for the corresponding price of a particular product. Upon entry of this information into the boxes **246**, the buyer may actuate a search button **248***a*, whereby a list of suppliers meeting the inputted criteria is provided to the buyer. If the buyer desires to obtain another list of suppliers, he/she may hit a reset button **248***b*, before again inputting a different set of supplier criteria.

[**0065**] Next in step **116**, the web page **260** is displayed as shown in **FIG. 3F** upon the buyer's terminal **16**, wherein there is shown a window **261** containing the recently used logos. If the buyer wants to review other logos, he/she presses the "view all logos" button **263** to initiate step **116** and to display a logo library web page **270** on the buyer's terminal **16**. Each buyer has a library of the logos that it's buyer is authorized to use, and that are stored in the data warehouse **26**, as shown in **FIG. 3G**. Thus when the buyer actuates the "view all logos" button **263**, the buyer's library in the data warehouse **26** is accessed and all of the authorized logos **274***a*-**1** are displayed in a frame or window **275**. Further, the programming underlying the window **270** permits a buyer to sort by buttons **273***a, b* and c to sort the logos by logo name, color and owner. Further, the buyer has an option to add new logos by actuating the button **272***a*, to pull up the logos of the buyer in step **272***b*, to identify a particular group of logos by actuating button **272***c*, to display public logos by actuating the button **272***d*, and to display the inactive logos by actuating button **272***c*. Further, the active one of the buttons may be changed by pressing the arrows **227-3***d*-**1** and **227-3***d*-**2**.

[**0066**] When the buyer clicks on to one of the markings **274***a*-**1 (FIG. 3G)** in step **116**, the program moves to step **118**, wherein the product detail web page **280** is displayed as shown in **FIG. 3H** upon the buyer's terminal **16 (FIG. 1)**. The web page includes a window **242'**, wherein the superimposed images of the selected product **249'** and the selected logo **274** are shown. At this point in the process, the customizing of the particular product **249'** has been completed, and the buyer clicks on to the "specify order details" button, whereby the product details may be viewed. For example, if the buyer would like to change the color of the product **249'**, he/she would again actuate the "select product variants" button **244***b'*, whereby the various characteristics of the product **249** are displayed and may be changed as explained above.

[0067] If the product **249'** with the marking **274** thereon is acceptable, the buyer actuates the button **244***e'*, whereby the program **100** moves to step **120**, wherein any special instructions and/or the delivery date of the buyer are entered. In particular, a product detail web page **290** is displayed as shown in **FIG. 31** on the buyer's terminal **16**. The web page **290** includes a "special instructions" box **291***a* whereby a particular instruction with respect to the product **249'** may be entered, a "logo dimensions" box **291***b* for permitting the entry of the dimensions of the logo, and a "delivery date" box **21***c* is provided to permit the buyer to enter the desired delivery date. To use these features, the buyer actuates the "specify order details" box **244***d'* and then enters it's instructions into the box **291***a*, or the logo dimensions into box **291***b* or the delivery date into box **291***c*. If the buyer is satisfied with the displayed product **249'**, the particular marking **274** and the relative position thereof, the buyer actuates the "specify quantities and continue" button **244***e'*.

[0068] Upon actuating the button **244***e'* **(FIG. 31)**, the program **100** moves to step **122**, wherein the desired quantity of the products is set. In particular, the product detail web page **300** is displayed as shown in **FIG. 3J** on the buyer terminal **16** and includes an array of boxes **301***a-d*, each representing a separate color of the product and permitting the entry by the buyer to a number of the products of a particular color which are desired. The web page **300** further includes an "add to cart" button **302***a*, an "add to project file" button **302***b* and an "add to my store" button **302***c*. If the buyer wishes to enter the quantity of products needed, he/she actuates the "specify quantities and continue" button **244***e'*, and then inserts the number or quantity of products **249'** into one or more of the boxes **301***a-d* depending on the color of the desired product.

[0069] Upon pressing the "add to cart" button **302***a* **(FIG. 3J)**, the program **100** moves from step **122** to step **124**, wherein the shopping cart web page **310**, as shown in **FIG. 3**K, is displayed upon the buyer's terminal **16**. The web page **310** also displays a summary of the details of the buyer's order and includes boxes **312***a-f* for respectively displaying the quantity, product image, model and supplier, unit price, total price and delivery or in-hand date. Further, the buyer may enter special instructions into a box **314***a* and logo dimensions into a box **314***b*. Further, there is "change logo" box **313***a* and "delete" box **313***b*, whereby the buyer can change or delete a logo or marking. Thereafter, the buyer may enter special instructions in the box **314***a* or the logo dimensions in box **314***b*. If the product order has been changed, then the buyer will actuate the "update shopping cart"**315***a*. Further, it is appreciated that the order data may also be saved as a project file or a file for the MyStore feature. In particular the buyer can actuate the "save all as project file" button **315***b* whereby the data is saved in the project file. Still further, the buyer may hit the "remove all" button **315***c* to remove the previously entered order data. After the buyer has reviewed the order information and has found it to be satisfactory, he/she may hit a "proceed to checkout" button **311**.

[0070] When the "proceed to checkout" button **311** is actuated, the program **100** moves from step **124** to step **126** **(FIG. 2)**, wherein an address information web page **320** is displayed as shown in **FIG. 3L** upon the user's terminal **16**. The web page **320** includes a "select address" button **322**, an "edit address" button **320***b* and a "delete address" button **322***c*, whereby the buyer may input it's address data into an address column **322***d*. If the buyer's billing address is the same as the shipping address entered above, the buyer actuates the button **323**, otherwise the buyer will actuate a "add new address" button **321***b* whereby a new, shipping address may be added. Further, if the products and/or services are to be shipped to different addresses, the buyer will actuate a "ship to multiple addresses" button **321***a* and then click on the "add new address" button **321***b*, whereby one or more additional addresses may be entered. If all of the address information has been inputted by the buyer, he/she actuates a "select address" button **324** whereby the address information is saved.

[0071] When the "select address" button **324** is actuated **(FIG. 3L)**, the program moves from step **126** to step **128**, wherein a shipping options web page **330** is displayed as shown in **FIG. 3M** upon the user's terminal **16** and facilitates the buyer's entry of shipping information into the E-Commerce System **10** and in particular to the active directory **32** **(FIG. 1)**. In particular, the web page **330** includes a plurality of buttons **332***a-y*, which as seen in **FIG. 3M** provides various options for shipping the product and/or services; in particular, the buyer can actuate on one of these buttons **332***a*-y to define the type of shipping that the buyer requires. Further, the web page **330** includes display space wherein descriptions **33***a* and *b* of the shipping service may be presented. In addition, the web page **330** includes a box **334***a*, wherein the buyer's account with a particular carrier may be entered, and a box **334***b* which may be actuated by the buyer to indicate that a freight forwarder for this particular product order is desired. After all of the shipping information has been entered by the buyer, he/she actuates a "check out" button **335**.

[0072] When the "check out" button **335** **(FIG. 3M)** has been actuated, the program **100** moves from step **128** to **130**, wherein the buyer finally reviews a particular order before submitting it for transmission to a particular supplier, and an order summary web page **340** as shown in **FIG. 3M** is displayed on the buyer's terminal **16**. In particular, the web page **340** includes a display area **341***a* for the buyer's billing address, a display **341***b* for displaying a buyer's shipping address, an area **342***a* for displaying the product number (or SKU) and the name of the supplier, an area **342***b* for displaying a description of the product, an area **342***c* for displaying the quantity or number of ordered products, an area **342***d* for displaying the unit price and an area **342***e* for displaying the total price of the order. An area **343***a* is provided to display the total order subtotal, an area **342***b* for tax, an area **343***c* for shipping and an area **343***d* for the cost of the total order. The buyer reviews this order summary and if a particular aspect of the order needs change, he/she may actuate a backup button, whereby the program **100** may return to the "add to basket" step **124** wherein changes may be made to the product and/or service order. On the other hand, if the order as displayed on the web page **340** is satisfactory, the buyer may actuate a "check out" button **344**.

[0073] When the "check out" button **344** **(FIG. 3M)** is actuated, the program **100** **(FIG. 2)** moves from step **128** to **130**, wherein a payment information web page **350** bearing the buyer's credit card payment information is displayed as shown in **FIG. 3N** on the buyer's terminal **16** and the approved order is transmitted to a selected supplier. In particular, the logo page **350** includes a box **351***a* for

receiving the name as it appears on the buyer's credit card, a box **351***b* for receiving a credit card number, a box **351***c* for receiving the type or brand of credit card, a box **351***d* for receiving the expiration month, and a box **351***e* for receiving the expiration year. In addition, the web page **350** includes a box **353***a* for receiving information as to other methods of payment, e.g., a purchase order. After the method of payment has been entered, the buyer submits it's credit card information by actuating a "submit" button **352***a*. If the buyer is submitting a purchase order, he/she may actuate a "submit" button **353***b*. The buyer has the further option of resetting the information by actuating a "reset" button **352***b*.

[**0074**] When either the "submit" button **352***a* or the "submit" button **353***b* **(FIG. 3N)** is actuated, the program **100** **(FIG. 2)** moves from step **130** to **134**, wherein the order is confirmed and transmitted to a selected supplier or vendor through the retail site **26***c* of the Internet information server **20**. In step **134**, the buyer evaluates it's order and checks that the order has been satisfactorily submitted to a particular supplier. Step **134** confirms the safe receipt of this order by generating an order number and displaying it in a box **361***b*. If the buyer wishes to place a new order, he/she may click onto a box **361***c* whereby the program **100** returns to the buyer's homepage **104** **(FIG. 30)** to initiate a new search. To terminate the buyer's current section with the E-Commerce System **10**, the buyer actuates a "log off" button **362**.

[**0075**] The web pages of **FIG. 3**, as described above, transmit data and information to and from the buyer via it's terminal **16**. In **FIG. 4**, the web pages that are particularly adapted to transmit and receive information and data from and to one of the vendors or suppliers are shown. Referring now to **FIG. 4**A, there is shown a vendor login web page **370**, which as displayed on the vendor's terminal **14** and controls the supplier's access to the vendor site **22***b* of the information server **20** **(FIG. 1)**. In particular the web page **370** includes a "vendor name" box **371***a* for submitting the name of the supplier seeking access to the system **10**, and a "password" box **371***b* for entering the password of this supplier. After the entry of data into the boxes **371***a* and *b*, the supplier may actuate a "submit" button **372***a*, whereby the supplier's name and password are transmitted to the active directory **32** for comparison with the previously stored name and password. If there is a match as determined by the active directory **32**, this supplier is permitted access to the vendor site **22***b*.

[**0076**] If access is given to the buyer, the buyer can login to it's homepage **390**, which is displayed as shown in **FIG. 4B** on the vendor's terminal **14**. The homepage **390** lists the potential activities in which the supplier may engage by actuating one of the buttons **391***a* to k. If the supplier actuates the "orders" button **391***g*, the program **100** will move to the step **136**, wherein the supplier may confirm the buyer's order and submit changes to that order, if needed. When the supplier actuates the "order's" box **391***g* **(FIG. 4B)**, the program **100** moves to a list of orders web page **380** as shown in **FIG. 4C**. In particular, the web page **380** generates a list of the supplier orders and a description thereof. In particular, there is a column **382***a* for the number of each of the vendors' orders, a column **382***b* for the status of each of the vendors' orders, a column **382***c* for the name of the buyer issuing the order, a column **382***d* for listing the total price of the order, and a column **382***e* for listing the date of it's order. Further, the web page **380** includes a "search by status" box **381***a*, which may effect a search of the supplier's orders by various parameters, e.g., all orders, by actuating a "find" button **381***b*.

[**0077**] As shown in **FIG. 1**, the retail site **26***c* is part of the interface between the vendor site **22***b* and the buyer site **22***a*. When a supplier desires to see the list provided by the web page **380**, it sends a request through the retail site **26***c*, requesting that list. In turn, this list or orders is downloaded via the retail site **26** to be displayed upon the vendor's terminal **14**. When the supplier inserts a particular order number into the box **381***a* and actuates the "find" button **381***b*, an order detail web page **400** is accessed and is displayed as shown in **FIG. 4D** upon the vendor's terminal **14**. In particular, the web page **400** has a series of boxes **401***a-w* for receiving information about different aspects of the selected order. Of particular interest are box **401***a* which indicates that the order is ready for the buyer's approval, box **401***b* that indicates the order is being processed and box **401***c* that indicates the entire order has been shipped and the selected order is fulfilled. Typically, the supplier will review the various terms of the buyer's proposed order and can fill in one of the boxes **401***a* to w if it has not been completed or the supplier wishes to change it. After a buyer's order has been reviewed and approved by the supplier, the supplier actuates the box **401***a*, whereby a message, e.g., typically in the form of an email, is transmitted to the particular buyer that issued the order, informing the buyer that it's supplier has reviewed it's order and that the buyer may now access and respond to the reviewed order.

[**0078**] In an example of this invention, the order of interest to the supplier is **1976** and it's status is indicated initially as being that of a new order. After the order **1976** has been processed and reviewed by the supplier, the supplier can enter the order number into the box **381** **(FIG. 4C)** and actuate the "find" box **381***b*. The supplier after reviewing the order as displayed on the order detail web page **400** as shown in **FIG. 4**D, actuates the box **401***a* to indicate that the supplier has reviewed the buyer's order, and if necessary has made changes thereto. As a result, the status of the order **1978** has changed from being a new "order": as indicated in the status column **382***b* of the list of orders web site **380**, to "pending buyer approval" as indicated in the status column **412***b* of the list of orders web page **410** as shown in **FIG. 4E**. The status of the order **1978** will remain "pending buyer approval" until the buyer approves this order. When a change of status has occurred, the retail site **26***c* of the Internet information server **20** **(FIG. 1)** is programmed to send an email to the vendor, e.g., to be received at the vendor's terminal **14**, thereby alerting the vendor that the particular order **1978** is ready for the vendor's approval.

[**0079**] Next in step **138** **(FIG. 2)** after a buyer has received it's notification of a change of a status of one of it's orders, the buyer via it's terminal **16** accesses it's buyer site **22***a* **(FIG. 1)** and causes it's order history web page **420** as shown in **FIG. 3P** to be displayed on it's buyer's terminal **16**. When the status of an order of a buyer changes, the retail site **26***c* **(FIG. 1)** is programmed to generate and transmit an email message to that buyer alerting that buyer to the change in one of it's orders. Responding to that email, the buyer accesses it's vendor site **22***b* and brings up for display the buyer's order history web page **420** as shown in **FIG. 3P**. In particular, the buyer clicks onto it's order **1978**, whereby the next order history web page **430** as shown in **FIG. 3Q** is

displayed on the buyer's terminal **16**. In particular, the buyer notes the order status **433** and that the order **1978** has changed it's status from "new order" to "pending buyer approval". The buyer has four options corresponding to an "approve order" button **434***a*, a "resubmit order" button **434***b*, a "cancel order" box **434***c* or a "post new message" box **434***d*.

[**0080**] If the buyer finally approves the order **1978** as reviewed and/or changed by the supplier and actuates the "approve order" button **434***a*, an order history web page **440** is displayed as shown in **FIG. 3R** on the buyer's terminal **14**, and the status of the order **1978** changes as shown in column **442***c* from "pending buyer approval" as shown on the web page **430** (**FIG. 3Q**) and on the web page **420** as shown in **FIG. 3**P, to "buyer approved" as shown in the "status" column **442***c* of the order history web page **440** as shown in **FIG. 3R**. The change of status of the order is inputted and stored in the data warehouse **36** under the control of the retail site **26***c* (**FIG. 1**). In particular the site **26***c* responds to this status change and sends an email message to the supplier designated in this order. This supplier responds to the email message by calling up it's list of orders web page **460** that is displayed as shown in **FIG. 4F** on the vendor's or supplier's terminal **14** and proceeds to click on the 1978 order, whereby an order detail web page **460** as shown in **FIG. 4G** displays upon the vendor's terminal **14** the details of the 1978 order and, in particular, indicates in the box **461***d* that the status of the order **1978** is "buyer approved". In step **140** if the supplier also approves the order, the supplier accesses the box **461***d* and changes the status from "buyer approved" to "work in progress", whereby the retail site **26***c*, i.e., the interface of the E-Commerce System **10** as shown in **FIG. 1**, transmits an email from the site **26***c* to both the buyer and supplier of this particular order indicating this further change of status of the order **1978**. The supplier is prompted by this email to access it's list of orders web page **470**, which is displayed as shown in **FIG. 4H** on the supplier's terminal **14**, whereby the change of status to "work in progress" is indicated in the status column **472***b* of the web page **470** for the order **1978**. Similarly, the buyer of order **1978** can access it's order history web page **480** as shown in **FIG. 3S** that may be displayed on the buyer's terminal **16** and is apprised that the status has changed to "work in progress" as shown in the status column **482***c* for the order **1978**.

[**0081**] In step **140**, the supplier initiates fulfilling the order by accessing it's order detail web page **490** that is displayed as shown in **FIG. 4I** on the vendor's terminal **14** and actuating the box **491***b* to indicate that the "order is being processed". When the order has been completed and shipped, the supplier will now actuate the box **981***c* to confirm to the system **10** that the "entire order has been shipped". At this point, the retail site **26***c* (**FIG. 1**) causes a change in the interface and in the data stored in the data warehouse **36** to indicate that the order has been shipped as reflected in the status column **502***b* of the web page **500** as shown in **FIG. 4J**. Upon changing the status to "shipped", the retail site **26***c* also sends an email message to the buyer at it's terminal **16** indicating a change of status. Upon receipt of this email, the buyer accesses it's order history web page **510** as shown in **FIG. 3**T and observes in the status column **512***b* that the order **1978** has been shipped. In step **144**, the buyer confirms receipt of the product by pulling up it's order history web page **520** as shown in **FIG. 3**U and changes the status as shown in area **523** from "shipped" to "completed" as now also indicated in the order history web page **530** as shown in **FIG. 3W**. The retail site **26** is responsive to the change of status of the order **1978** to "completed" by informing the buyer through it's order history **530** that the status of the order has changed to "completed" and by informing the supplier through it's list of orders **540** as shown in **FIG. 4I** that likewise the order **1978** is completed as shown in the status column **542***b*. Likewise, an email message is sent in step **144** (**FIG. 2**) to the service provider of the E-Commerce System **10** indicating that the particular order, i.e., order **1978**, has been completed, whereby the service provider invoices the supplier for a commission. In an illustrative embodiment of this invention, the commission may be a certain percentage of the total sale price of the order. Finally in step **148**, the supplier invoices the buyer for the price of the order.

[**0082**] In **FIG. 5**, there is shown a flow diagram of the functionality for adding and storing new products and/or services of a particular supplier or vendor to the data warehouse **36** (**FIG. 1**). In a sense, the functionality carried out by the steps of the flow diagram of **FIG. 5** provide a tool for the vendor for downloading the products and/or services from of it's one or more catalogues into the data warehouse **36**. To gain access to the E-Commerce System **10**, the vendor pulls up its vendor login web page **640**, which as shown in **FIG. 6A** is displayed on the vendor's terminal **14** and then enters it's user name and password into a pair of boxes **642** and **644**, respectively. Then the vendor clicks on a submit button **646**, whereby the flow diagram **600** moves to its vendor home page (not shown) and selects to enter its catalogue editor in step **604**. Upon entering the step **604**, the enter new product web page **650**, which as shown in **FIG. 6B** is displayed upon the vendor's terminal **14**. The vendor in step **606** actuates a new button **655** to initiate the process of identifying a new product which is taken from the vendor's catalogue and input into the data warehouse **36**.

[**0083**] Upon actuating the new button **655**, the program **600** moves to a step **608** of selecting a product definition and, in particular, displays upon the vendor's terminal **14***a* select a product definition web page **660** as shown in **FIG. 6C**. Initially, the vendor actuates a new product button **661**, which permits the vendor to select one of the definitions. In **FIG. 6**C, definitions **001** to **007** are shown. The vendor selects a particular definition, by using the arrows **662** to move a highlighter **666** up or down to select a particular definition. When the desired definition is selected, the vendor clicks on a button **664** selecting that particular definition of a product. Generally, the product definition determines what set of variables or variants is attached to a particular product as identified by it's "SKU". This product definition must remain constant for every variant of this SKU. In particular, the product definitions defines the product variants or characteristics which may be changed. For example if the product is a shirt, these changeable characteristics or variants would include shirt size, color, material, closure, weight, etc. The products so defined is identified by it's "SKU" which in effect is the product ID. Note however, that the product's "SKU" may be used only once in a particular product catalogue of a given vendor. One of the purposes of the product definition is to provide a capability of generating a screen that will permit a buyer to select a particular product with particular characteristics that would define such a product. The product definition further identifies a particular

template, which may be populated with data corresponding to the product variants or characteristics, whereby a screen can be readily produced to permit input of data to select and to define the particular characteristics of the product. The vendor selects a particular definition such that the defined variables correspond to those of the vendor's product. To that end, it is understood that a vendor would need a complete set of definitions, to permit a comparison and selection of that definition which meets a particular product and/or service of the vendor.

[0084] When the product definition has been selected in step **608**, the flow diagram **600** moves to step **610**, whereby an enter general information web page **670** that as shown in **FIG. 6D** is displayed upon the vendor's terminal **14**. Thereupon, the vendor fills in various pieces of information about the particular product into a window **672** of boxes **672***a* to *m*. When the vendor enters yes into the box entitled "is blank good", indicating that the vendor does have an image of that product, the flow diagram **600** moves to step **612**, wherein an upload images related to that SKU web page **680** that as shown in **FIG. 6E** is displayed upon the vendor's terminal **16**. Then the vendor clicks on a browse button **681** and selects a file of a desired image of the product. In turn, the vendor inserts the name of the selected image file into a box **685***b*. It is appreciated that the file name also identifies the address or pass path to that memory location within the vendor's terminal **16** where the selected image file is stored. In addition, images **686***a* and *b* displayed in a window **686** to permit the vendor to preview these products and, if appropriate, the supplier clicks on an "open" button **685***d*, whereby the ID and address of a product of a supplier is held, as will be explained, in a buffer **624** as shown in **FIG. 5** until this data is uploaded to the data warehouse **36** (**FIG. 1**).

[0085] After clicking on the button **685***d*, the flow diagram **600** returns to the enter general information web page **670** as shown in **FIG. 6D**. At this time, the supplier enters into a custom box **672***f* as to yes or no as to whether a product of the supplier will be customized or not. In **FIG. 6**D, no has been entered into box **672***f* indicating that this product is not to be customized. Further, a default price, i.e., an average price in the range of prices as dictated by the quantity of the products, is entered into a box **672***m*.

[0086] After entering data into the web page as shown in **FIG. 6**D, the supplier actuates an icon **673**, whereby an "enter pricing" matrix and imprinting methods web page **690** that as shown in **FIG. 6F** is displayed upon the vendor's terminal **14**. The web page **690** provides a tool for the vendor or supplier, whereby the supplier may enter all of the variants or variations for a particular product, appreciating that each variant for each product or service may have a different price matrix. To create a price matrix for each variant, the supplier fills in the boxes **695***a*-**7**, which respectively receives an SKUvarID, a quantity of products purchased, a minimum quantity of that range, a maximum quantity of that range, a product variable, e.g. the color of the product, and a variant price. Note that the SKUvarID refers to an ID of a particular variant. In the example of the web page **690** as shown in **FIG. 6**F, the inputted data for three variants are shown in a window **693**, where the columns correspond to the data entered into the boxes **695**. For example, the current entered variant information indicates that the number or ID of a product variant is three, the quantity range is 50 to 99, the minimum quantity is 50, the maximum quantity is 99, the product variant is the color of the product, e.g., green, and the variant price for this particular range of product quantities is $1.36. After all of the variant data has been added, the supplier hits a "done" button **696***a*, whereby the process moves to the imprinting methods section **698** of the window **690**. If the supplier wishes to cancel a particular variant, he/she strikes a "cancel" button **696***b*. As noted above, a particular product may have as high as 1700 variants. In this case, the web page **690** would provide a tool that would effectively permit the entry of significant quantities of data for each variants of all of the products or services.

[0087] Next, the supplier moves to the imprinting methods section **698** of the web page **690**. Here the supplier selects one of the possible imprinting methods as displayed within a window **696***a*. The supplier may manipulate a set of arrows **696***b* to highlight one or more possible imprinting methods for a particular product. Once a selected method is chosen, it may be added to an "available imprinting methods" window **697** by clicking on an "add" button **698***a*. If a particular method is to be removed, the supplier highlights that method and clicks on a "remove" button **698***b*.

[0088] Upon striking the "add" button **698***a* of the web page **690** (**FIG. 6F**), the flow diagram **600** moves to step **626**, wherein category and relationship information on each SKU is input into the E-Commerce System **10** and, in particular, and an "assigned categories, and relationships" web page **700** is as shown in **FIG. 6G** displayed upon the vendor's terminal **12** (**FIG. 1**). Focusing particularly on an assigned category section of the web page **700**, there is shown a window **702**, which displays the available categories. The supplier may chose one of these categories by clicking on a particular category within the window **72***a* and then actuating an "add" button **703***a*, whereby the selected category is transferred to an "assigned categories" window **702***b*. By assigning one or more categories to a particular product or SKU, the supplier is permitting that product to be searched by using the designated category. In particular, both the buyer and the vendor can search the products and/or services held in the data warehouse **36** by the use of a designated category, when that category has been related to a particular product or service as described above to a particular category.

[0089] Next, the supplier moves to the "product family relationships" section **704** of the "assigned categories and relationships" web page **700**. By the use of this "relationship feature, the vendor may relate each of it's products and/or services to at least one other product and/or service. In particular, the supplier may actuate a "new" button **706***a*, whereby the supplier may enter into the window **705** relationship data in a box **705***a*, the particular item (product or service) in box **705***b* and/or item type in box **705***c*. When the buyer hits on a button **708**, a drop down will appear in the web page **700**, which lists all of the products or SKUs that are included in the vendor's present catalogue. Upon completion of entering data into the web page **700**, the vendor clicks on a "accept" button **706***b*, whereby all of the data entered by the functionality of the flow diagram **600** is saved for entering into the data warehouse **36**, as will be explained.

[0090] Referring now to **FIG. 5**, the image files that are obtained from the vendor are uploaded in step **612** and are

examined in step **614** to determine whether the uploaded images are the relatively large, high definition images of a product or service, or the relatively small or thumbnail images of a lower image resolution of such an item. If a primary or larger image is being uploaded, step **614** passes a primary image to step **618**, where the primary image is put into a JPEG file to be displayed in two dimensions. Alternatively, the primary image may be applied to step **616**, where programming that will permit the primary image to be displayed in three dimensions is attached to the primary image data. Step **620** inputs the primary data image as modified in steps **616** and **618** to a buffer step **624**, whereby the primary data as well as the thumbnail data derived from step **622** are held in a buffer. Further, all of the data entered by operation of the adding new products flow diagram **600** is held in step **632** in a buffer, until all of the information concerning the products and/or services of a particular supplier has been entered, at which time step **634** passes all of the data derived from the vendor's terminal **14** is downloaded via the Internet information server **20**, the block **26***b*, the commerce server **30** and the database server **34** to be stored in the data warehouse **36** for use by both of the vendor and the buyer.

[**0091**] After the data associated with the new products has been entered by the flow diagram of **FIG. 5** as explained above, the vendor product data may be edited and changed by a vendor data editing process whose flow diagram **720***a* is shown in **FIG. 7**. Initially in step **722**, the vendor pulls down and displays a "vendor login" web page **750** as shown in **FIG. 8A** on the vendor's terminal **14**. The vendor then enters it's user name in a box **751***a* and its password in a box **751***b* and, thereafter, clicks on a "submit" button **752***a*. If the entered user name and password corresponds to those kept in the active directory **32**, the active directory **32** authenticates this particular supplier and provides the vendor access to the E-Commerce System **10**.

[**0092**] Next, an "enter vendor catalogue" web page **760** as shown in **FIG. 8B** is displayed in step **724** upon the vendor's terminal **14**. The vendor clicks on a "catalogue editor" button **762***d*, whereby the vendor data edit process of the flow diagram **720** moves to step **726**. Then, the vendor clicks on the "catalogue editor" button **762***d* **(FIG. 8B)**, whereby the flow diagram of **FIG. 7** moves to the "select product to be edited" step **726**, whereby a "highlight a product and edit" web page **770** as shown in **FIG. 8C** is displayed in the vendor terminal **14**. In particular, the web page **770** includes a window **775***c* wherein each of the previously entered products or SKUs is displayed. One of the products may be selected by manipulating the arrows **778** to change the position of the highlight to a selected product. To select the highlighted product, the vendor clicks onto an "edit" button **776***b*, whereby the editing process as shown by the flow diagram **720** of **FIG. 7** moves to step **728**.

[**0093**] Step **728** accesses and pulls up an "editing form"**780**, which as shown in **FIG. 8D** is displayed in step **730** upon the vendor's terminal **14**. In particular, the form **780** includes a series of boxes **781***a-m* which are populated with the data for the selected product or SKU. Now, the vendor may edit any of the data as shown in the block **781** and, if satisfied with the edits, clicks onto a save button **782**, whereby the changes or edits made to the data appearing in the block **781** is saved in step **732**. Upon completion of saving the edited data, the process **720** goes to step **734**, wherein all of SKU, variants and image data are loaded into the database server **34**. Then, all of the edited data is assembled in step **736** into a complete SKU entry, before step **738** downloads the edited data via the customized commerce server **34** to be kept in the data warehouse **36**.

[**0094**] If the buyer wishes to customize a selected product, he/she can select a marking, e.g., a trademark, a logo or the like, and upload the selected marking to be superimposed on the selected product by employing a buyer's logo upload process as carried out by a flow diagram **800** as shown in **FIG. 9**. Initially in step **802**, the buyer logs into a "buyer's login" web page **830** as shown in **FIG. 10A** by inserting it's user name and password into boxes **832***a* and *b*, respectively, before hitting a "go" button **832***c*. If the active directory **32** **(FIG. 1)** finds a correspondence between the entered user name and password and those previously stored therein, this buyer is authorized and is provided access to the E-Commerce System **10**.

[**0095**] Upon clicking on the "go" button **832***c*, the flow diagram **800** moves from step **802** to **804**, wherein a "buyer's logo home" web page **840** as shown in **FIG. 10B** is displayed upon the buyer's terminal **16**. The web page **840** includes a window **841**, wherein all of the markings **842***a-k* that belong to this buyer are displayed. In particular, the array of markings is constructed by accessing the data warehouse **36** to identify all of the markings that are assigned to this buyer and to populate the window **841** with those markings. In order to select a particular marking or logo to be uploaded, the buyer highlights one of the markings **841** within the window **841** and then clicks on an "add new" button **843** to select the highlighted marking and to go from step **806** to step **808** **(FIG. 9)**.

[**0096**] In step **808**, a "buyer logo upload" page **850** is displayed as shown in **FIG. 10C** on the buyer's terminal **16**. The "buyer logo upload" page **850** includes a series of boxes **851***a* to **851***i*. The buyer clicks on a "browse" button **252**, whereby a pop up display (not shown) is pulled up with a thumbnail image of each of the buyer's markings displayed thereon. The buyer selects one of the markings displayed upon the pop up screen and then proceeds to fill in the boxes **851***a* to **851***i* with respectively the address or file path of the selected marking, the address of the viewpoint file, the number of colors, the colors used in the selected marking, the color values, the security with which the markings of the buyer are to be treated, a short description of the marking, a full description of the marking, and the applicable uses and methods of superimposing the selected marking on the product. For example, the buyer may actuate selected of the arrows **253***a-d* to transfer a particular application from the available window **851***i* to the selected window **851***i***2**. In this particular illustrative embodiment, the selected marking is authorized to have one or two spot colors and a color imprint associated therewith.

[**0097**] After a marking has been selected and it's address in the memory of the buyer's terminal **16** determined, the flow chart **800** moves from step **808** to **810**, wherein the image of the marking is converted into a thumbnail image in step **812** before being returned to a logo or marking library in step **812**. Further, the selected marking or logo image is converted in step **814** to a flash file, before it is applied or superimposed onto the product or a screen to a logo application in step **818**. Further, the image is converted to an EPS

production file in step **816**, whereby the marking may be used in selected of the screens that are shown to the vendor. The EPS production files are in turn filed in step **822** in the data warehouse **36** by the customized commerce database server **34**.

[**0098**] After the number of products and/or services has been reduced to a sufficiently refined degree and a desired marking has been selected, the flow diagram **880** moves from stem **888** to **890**, wherein a desired product and/or service is selected. The marking **863***a* as combined or superimposed on a selected product is shown in step **818** (**FIG. 9**) on a window **863** of a "buyer logo application" web page **860** as displayed as shown in **FIG. 10D** on the buyer's terminal **16**. If the buyer accepts the customization, he/she clicks onto an "accept customization" button **864***a*. If not, the buyer hits a "cancel" button **864***b*.

[**0099**] Referring now to **FIG. 11**, there is shown a buyer's category search process, which is illustrated by a flow diagram **880**. In an initial step **882** of the flow diagram **880**, the "buyer login authorization" web page **900** is displayed as shown in **FIG. 12A** by the buyer's terminal **16**. In particular, the buyer enters it's user name and password in boxes **901** and **902**, before clicking on a "go" button **903**. Upon clicking on the button **903**, the flow diagram **880** moves from step **882** to step **884**, wherein a "buyer category searches" web page **910** is displayed as shown in **FIG. 12B** by the buyer's terminal **16**. The "buyer category search" web page **910** includes a "browse" button **911** to permit a review of promotional products, a "browse" button **912** to permit a review of premium products and a "browse" button **913** to permit a review of services as provided by suppliers or providers. The buyer may click on any of the buttons **911**, **912** or **913** to review or browse products and/or services in the various categories, e.g., promotional products, premium products and services. Though only four categories are shown in **FIG. 12**B, it is appreciated that a category search may be initialized and/or programmed for any number of products and/or service categories.

[**0100**] In an illustrative category search, the buyer may click on the promotional product browse button **911**, whereby the flow diagram **880** moves from step **884** to step **886***a*, wherein a "buyer's category search results" web page **920** is displayed as shown in **FIG. 12C** upon the buyer's terminal **16**. **FIG. 12C** indicates how a buyer may bore down to successively chose a narrower category. In this illustrative embodiment, the buyer first actuates a search for the relatively broad category premium products as indicated at space **921***a*. In particular, upon striking the premium products browse button **912**, a search is made through the data warehouse **36** and identifies and collects all premium products to be displayed at the area **924** of the web page **920**. The web page **920** provides a set of buttons **923** including a "sort by supplier" button **923***a*, a "sort by product" button **923***b*, a "sort by 3-D" button **923***c* and a "sort by price" button **923***d*. Upon clicking on one of the buttons **923**, the flow diagram **880** moves from one of the steps **886***a-d* to step **888** wherein subordinate categories are selected. Illustratively, the buyer may click on the "sort by product" button **923***b* whereby a further search is conducted to locate the office products as indicated at area **921***b*. A second search may be made of the previously identified products to find which of these products are office products, and the office products are now displayed within the display area **924**. The search may continue in this fashion by actuating various of the keys **923** whereby the number of identified products is successively refined and reduced. When the number of promotional products is reduced to a sufficiently refined number and/or the buyer finds the product and/or service of interest, the buyer clicks onto one of the selected products as appear in the space **924**.

[**0101**] Upon clicking upon the desired product and/or service, a "product detailed" web page **930** is displayed as shown in **FIG. 12D** upon the buyer's terminal **16**. In this illustrative embodiment, the buyer has selected a "mini calculator key ring" which appears in a display space **931***a*. The space **931***a* provides a relatively small thumbnail image of the key ring, as well as it's SKU number, the name of the supplier and a brief written description. Further, the web page **930** includes a window **931***b* in which a relatively large image of the key ring is displayed with a marking, e.g., the trademark Microsoft, superimposed thereon. Further, the web page **930** includes four buttons **932***a-d*, which operate in a manner similar to that explained above with respect to the buttons **244***b-e* as shown in **FIG. 3D**. Briefly, the buyer may actuate the button **932***a* to select the various product variants of the key ring, e.g., color. The buyer may click on the button **932***b* to effect customizing of the key ring as by the addition or superimposing of the marking "Microsoft" as shown in the screen **931***b*, the button **932***c* to add specific order details and, finally, the button **932***d* to specify the quantities of the key ring to be ordered and to formulate a detailed order for the key rings.

[**0102**] If the buyer would need to conduct an advanced search, he/she will log into the advanced search process, which is shown as a flow diagram **940** in **FIG. 13**. Initially, the user logs into the E-Commerce System **10** and, in particular, to the buyer site **22***a* (**FIG. 1**) by inserting it's user name and passwords into the boxes **951***a* and b respectively, before clicking onto a "go" button **952**, whereby the flow diagram **940** moves from step **942** to step **944**. Step **944** displays a vendor home web page, which as shown in **FIG. 14B** displays a search screen **960** (a part of the home page) that includes a plurality of search buttons **961***a-d*. When the user clicks onto the "advanced search" button **961***b*, the flow diagram **940** advances from step **944** to step **946**, wherein an "advanced search form" web page **970** is displayed as shown in **FIG. 14C** in step **946** upon the vendor's terminal **16**. The web page **970** is divided into three parts, each facilitating a different kind of search, whereby the buyer may pick one or more of the search types to be conducted. In particular, there is a search by written description as identified by the numeral **971**. The buyer may insert into a box **971** various key words that are descriptive of the desired product and/or service. Further, various types of searches may be selected by scrolling through the descriptors presented in a box **971***b*. The web page **970**, further includes a section **972** to permit a search by license, whereby a particular name of the license may be entered to identify the product. In particular, the buyer can scroll through the various licensed products and select a desired licensed product.

[**0103**] Further, the buyer may be able to search by a particular supplier. In one illustrative embodiment, the buyer may insert in box **973***a* the name of a particular supplier whose goods and/or services are desired. Alternatively, a particular supplier may be identified by the types of service provided by that supplier and a particular service may be

entered into selected of the boxes **973***b* to h. The buyer may also select a supplier who had rush service in box **973***b* or a supplier that was minority owned in step **973***c*. Upon completion of making the various entries on the advanced search form web page **970**, the buyer clicks on a "search" button **974***a*, whereby the flow diagram **940** of **FIG. 13** may move from step **948** to **950**.

[**0104**] Upon clicking upon the button **974***a*, a search of the data warehouse **36** is made to find all of those products and/or services which meet the entered criteria. Then step **950** generates an "advanced search results" web page **980**, which is displayed as shown in **FIG. 14D** on the buyer's terminal **16**. The initial number of matches or hits is indicated in display space **981**. To reduce the number of matches and to refine the search, the user may click on one of a "sort by supplier" button **982**, a "sort by product" button **982***b*, a "sort by 3-D" button **982***c* and a "sort by price" button **982**. The search may be repeated any number of times, each rerun being more refined than the last. The web page **980** further includes a product and/or service display area **983**, wherein the products identified in the course of the search are displayed. The search criteria may be further refined in window **984**, which includes a pair of boxes **984***a* for receiving further key words and a box **984***b* which may be scrolled by the buyer to select further key words. When the buyer finds a product or service as shown in the display space **983** that he/she wishes to find further information about, the buyer clicks on the particular item as displayed in the space **983**, whereby the flow diagram **940** moves from step **950** to step **952**, whereby a web page (not shown) may be generated to provide more information about the selected product and/or service. When a particular product and/or service has been selected in step **950**, the data identifying and/or related to that product or service is downloaded by the SQL database server **34** into the data warehouse **36** in step **954**.

[**0105**] Referring now to **FIG. 15**, there is shown the process of conducting a buyer's keyword search, which is illustrated by a flow diagram **1000**. The buyer enters in step **100***z* it's user name and password into respective boxes of a "buyer login authorization" web page (similar to that described with respect to **FIG. 5**). If there is a match between the entered buyer's name and password with those previously stored in the data warehouse **36**, this buyer is then granted access to the E-Commerce system **10**. The "login authorization" web page also includes a "go" button, which if actuated by the buyer causes the flow diagram **1000** to move from step **1002** to step **1004**, wherein a "buyer enter keyword" search screen **1040** is displayed as shown in **FIG. 16A** upon the buyer's terminal **16**. The "buyer enter keyword" screen **1040** includes boxes **1041***c* and *d*, into which the buyer may enter respectively keywords and may control the scope of the keyword search by clicking on an arrow associated with the box **1041***d*. Further, the screen **1040** includes a "go" button **1042**. After entering the keyword(s) and adjusting the search, the buyer clicks on the "go" button **1042**, whereby the flow diagram **1000** moves from step **1004** to step **1006**. In step **1006**, the commerce server filter **24** (**FIG. 1**) uses the ASP pages to formulate a search of the data warehouse **36** based upon the keywords and the search scope input by the buyer. In particular, the search uses the SKU identifications as shown in step **1010**, a name of the product as shown in step **1012** and a written description of the product as shown in step **1014** to identify those products and/or services that satisfy the buyer's input. After developing the search scope base on these inputs, the flow diagram **1000** moves to step **1016**, wherein synonyms for the entered keywords are processed to enhance the scope of the search. In one illustrative embodiment of this invention, step **1016** is implemented by the Thesaurus Component Software of Microsoft. Next the flow diagram **1000** moves to step **1018**, wherein a search of the data warehouse **36** is made to locate the various products and/or services which match the inputted and processed search criteria.

[**0106**] Next in step **1020**, data reflecting the matches between the products and/or services and the search criteria is organized to be displayed on a "buyer search results" web page **1050** as will be explained in detail below with respect to **FIG. 16B**. Next in step **1022**, the product (and/or service) data is randomized so that one supplier will not be favored as how it's products will be displayed to the buyers. Next in step **1024**, a "buyer search results" web page **1050** is displayed as shown in **FIG. 16B** on the buyer's terminal **16**. In particular, the web page **1050** includes a space **1052** wherein a particular set of products **1040***a* to **1054***h* as identified by the keyword search are displayed. Each product is presented as a thumbnail image in column **1055**, the name of it's supplier in column **1053***a*, a short written description of the product in column **1053***b*, the type of image in column **1053***c* and the price of the product in column **1053***d*. As indicated above, step **1022** presents the displayed products in a random order so as to not favor any particular supplier, e.g., those suppliers whose names starts with the letter toward the front (or back) of the alphabet. If further searching is required, the buyer can enter additional keywords without leaving the web page **1050**, in the box **1041***c*' or to change the nature of the search in box **1041***d*', before again hitting a "go" button **1042**'.

[**0107**] Further as shown in **FIG. 15**, the flow diagram **1000** moves to step **1026**, wherein the buyer can select a different way of rearranging and/or sorting the order in which the products are displayed. In an illustrative embodiment of this invention, the buyer can select a further name or names of a supplier in step **1028***a*, may select products that are displayed in 2D or 3D, may reorganize the products by placing them in alphabetical order by name, and reordering the presentation of the products by their price. The data representing the rearranged products and/or services is again used to search the data warehouse **36** and the matching products and/or services are rearranged to step **1030**, wherein a "rearrange of search results" web page **1060** is displayed as shown in **FIG. 16C** on the buyer's terminal **16**. As a comparison of **FIGS. 16B and C** will indicate, the product data is displayed in a fashion that 3D images are given preference. It is understood, as explained above, that the order of the products may be by price, alphabetized by name, or alphabetized by the name of their supplier.

[**0108**] Referring now to **FIG. 17**A, there is shown a detailed flow diagram **1100** for permitting a buyer from his/her terminal **16** to communicate with the E-commerce system **10** (**FIG. 1**). In step **1102**, the buyer logs in to the home page **1104** (see web page **200** of **FIG. 3A**) by inserting therein its user name and password, as explained above. In particular, the buyer clicks onto one of the buttons (not shown) on the home page **1104** which corresponds to each of an order updates page **1106**, a Request for Proposal (RFP) page **1107**, a chat home page **1120** and a product page **1124**.

Upon clicking onto the button that corresponds to the order updates page **1106**, the process **1100** moves to the step, wherein a search of the data warehouse **36** (**FIG. 1**) for all of the supplier responses that were made to the orders of the logged-in buyer that had been previously stored in the data warehouse **36**. As explained above, each buyer (who has logged-in to the system **10**) may place an order for a certain item, whether a product and/or a service. The buyer's order includes the unique ID of the buyer that placed the order. In turn, the supplier receiving this buyer's order formulates and transmits a response bearing the buyer's ID and an indication of whether the supplier accepts the buyer's order or provides a counter offer by modifying the provisions of the buyer's order. The supplier's response is stored in the data warehouse **36** and an email is automatically sent to the originating buyer to prompt this buyer to access the system **10** and bring up the order updates page **1106** as described above. In particular, the buyer side **22***a* of the internet information server **20** searches the data warehouse **36** for all of the supplier responses bearing the buyer's ID and constructs a list of the identified suppliers' responses to be displayed on the order updates page **1106**. Next, the buyer selects by clicking on one of the listed supplier response displayed on the order updates page, whereby the buyer may review the selected supplier response on its terminal **16** (**FIG. 1**) and send a return message, e.g. by email, to the supplier providing the selected response. Next in step **1108**, a system decision is made as to whether to transmit the buyer's email by an internal Email system **110***a*, i.e., an email system of the E-commerce system **10**, or by an external Email system, i.e., an email system of the supplier sending the response. The supplier may have its own email system that has been adapted to process buyers' responses for this supplier; in such an embodiment, the suppliers would make an input to the system **10**, typically at the time the supplier registers with the E-commerce system **10**, where by the system will use the supplier's email system **1110***b*. Next in step **1112**, the buyer's email is sent to the corresponding supplier and, in step **1114**, this Email message is stored in a section of the data warehouse **36** dedicated to the buyer that sent the Email. In step **1116**, the supplier receives the buyer's email as will be explained below with respect to **FIG. 17B**.

[**0109**] Next if the buyer clicks on the RFP button on the home page **1104**, the RFP page **1107** is displayed on at the buyer's terminal **16** (**FIG. 1**). Upon clicking on the RFP button, the buyer side of the server **20** searches the data warehouse **36** for all response by suppliers to the RFP placed by the buyer and constructs a list of all of the supplier responses on the RFP page **1107**. The buyer then selects a supplier response to review and clicks on that response as listed on the page **1107**, whereby that supplier response is displayed on the buyer's terminal **16**. After reviewing that response, the buyer sends its response in the form of an email. The buyer's email may be transmitted by the email system **110***a* of the E-commerce system **10** or the supplier's email system **110***b*, as determined in step **1108**, in a manner similar to that described above. In step **1112**, the email is sent to the supplier responding to the buyer's RFP and the buyer's Email response is stored in step **1114** in the data warehouse **36**. Finally the buyer's Email message is received and reviewed by the supplier in step **1116**.

[**0110**] Next if the buyer would like to directly communicate with a particular supplier, the buyer may click on the chat button appearing on the home page **1104**, whereby the E-commerce system **10** pulls up and displays a list of the suppliers that are currently in their chat rooms and are currently available to communicate with. To implement such a display, the supplier can store an indication in the data warehouse **36**, that it is available to chat, whereby each available supplier may be identified and a list thereof may be displayed on a buyer's terminal **16**. If the buyer finds a supplier with which he/she wants to communicate, the buyer clicks on that buyer and a chat is carried our in step **1122**. In an illustrative embodiment of this invention, the messages sent by the buyer and supplier in the course of the chat may be stored in step **1123** in the data warehouse **36**.

[**0111**] If the buyer needs further information about a particular item that was identified by the search engine **104** and one of the searches **106***a, b* or c, the buyer may request the supplier of that product in step **108** to provide more information about that product. If the buyer wants to view that item information, the buyer clicks on the products page button on the home page **1104**, whereby the web page bearing further information about the item is displayed on the buyer's terminal **16**. The buyer may then take further action by communicating with the supplier **116**. For example, the buyer may then send an order to the supplier **1116**.

[**0112**] Referring now to **FIG. 17**B, there is shown a detailed diagram of a vendor communications process **1140**, whereby one of the plurality of suppliers may communicate with a selected buyer. Initially in step **1142**, a supplier or vendor enters its user name and password into a supplier's home page (see web page **370** in **FIG. 4A**) and if authenticated as described above, the process **1140** move to step **1144**, wherein the supplier gains access to the E-commerce system **10** and, in particular to the supplier side **22***b* of the Internet information server **20** (**FIG. 1**). Upon authentication of the supplier, a home page (page **340** as shown in **FIG. 4B**) is displayed on the supplier's terminal **14** (**FIG. 1**). The supplier's home page includes a button (**391***g* of **FIG. 4B**), which the supplier may click on to draw from the ware house **36** each of the orders, which were placed by various buyers and for items that were supplied by this supplier. When a buyer places an order for a particular item, the order indicates the supplier of that item and is stored in the data warehouse **36**. In turn, all of the orders for items of this supplier are drawn in step **1150** from the data warehouse **36** and a list of all of these orders for this supplier's items, is constructed in step **1148** and displayed on an order page **1146** on this supplier's terminal **14**. The supplier reviews the list of orders for the items of this supplier and selects one the orders for review. In step **1152**, the supplier decides whether to accept or reject the buyer's order. If the order is rejected, the communication session of the supplier terminates. If the supplier accepts the buyer's order, the supplier prepares a response accepting the order and stores it in the data warehouse **36**, and an email is automatically generated and transmitted as described above via one of the email systems of the E-commerce system or the supplier, as controlled by the supplier. In step **1160**, the buyer receives the supplier's response that agreement has been reached by the buyer and the supplier, and that the purchase of the items has been completed. The buyer is provided, in one embodiment of this invention, the option to make minor changes, as long as they

do effect the final compensation to the buyer. Further, the final emails from the supplier are stored in the data warehouse **252**.

[**0113**] Further, the supplier in step **1144** may click a RFP button on the home page, whereby the process **1140** moves to step **1150**, wherein each RFP, that designates the items of this supplier and has been stored in the data warehouse **36**, is drawn from the data warehouse **36** and a list thereof is constructed and displayed in step **1170** on the RFP page on the supplier's terminal **14** (**FIG. 1**). Next in step **1172**, the supplier selects and reviews each of the RFPs, before deciding whether or not to make any response to the RFP, to accept the RFP or to make in step **1174***a* counter offer to the originating buyer. The buyer receives the supplier's response in step **1168**, and if the buyer accepts the supplier's counter offer in step **1166**, an email is automatically sent to each of the buyer and the supplier informing them that the terms of RFP have been accepted by both parties. This communication is also stored in the data warehouse **36** in step **1162**.

[**0114**] Further, the supplier may in step **144** click onto a chat room button appearing on the supplier home page, whereby the process moves to step **1176**, wherein the data warehouse may be searched to identify which of the buyers are currently in the chat room and available to communicate with, and to construct and display a list of the available buyers. Then in step **1178**, the supplier may click on a selected one of the listed buyers and start in step **1178***a* session in the chat room with the selected buyer.

[**0115**] Referring now to **FIG. 17**C, there is shown a detailed flow diagram of a process **1200** for facilitating a buyer to search the data warehouse **36** for those items that satisfy the buyer's criteria, and to select at least one of the set of items to be purchase. Initially in step **1202**, the buyer logs in into the buyer's side **22***a* of the Internet information server **20** by entering its user name and password in to the buyer's home page. Then the buyer initiates a search for the items stored in the data warehouse **36** that match the buyer's criteria. In particular, the buyer may initiate a key word search **1206***a*, an advanced search **1206***b* or a category search **1206***c*, as explained above. The set of items identified by the selected search is filtered to reduce and refine the results of the search by the name of the desired supplier, the price, the image type (2D or 3D) and the alphabetic order. In the following steps, the process **1200** proceeds to construct a web page or screen that displays the item along with information about the item. In step **1212**, a template is called according to the definition of that item. Thus, the selected template will have boxes to receive the buyer's values of the variables defined by the definition. For example if the item was a shirt, the variables of this items may include size data, style data and color data. To select a particular item, the buyer would need to enter small, medium or large into the size box, red into the color box and button-down into the style box. Of course, other items would have difference variables and, thus, require their own particular template. Next in step **1214**, a page representing the item's particular template is displayed on the buyer's terminal **17**, whereby the buyer can enter the desired value into each variable data input box. Next in step **1216**, a price matrix corresponding to the item values entered in step **1214** is added to the selected template. As described above with respect to **FIG. 5, a** plurality of price matrixes were defined by the supplier, one for each different set of variables and are stored in the data warehouse **36**. In particular, step **1216** defines the price matrix for each different set of variable by searching the data warehouse **36** to find the same set variables and then add the corresponding price matrix found in the data warehouse **36** to the matching set of variables

[**0116**] To complete the screen, a marking such as a logo or trade mark may added to the template for a particular product in an illustrative embodiment of this invention. Next in step **1218**, the status of a particular buyer is examined to determine which markings that this buyer is authorized by owner to use. Next in step **1220**, the buyer selects from the set of markings that he/she is authorized to use, that marking that is to be combined with or superimposed on the selected item. The image data of the selected marking is then added to the template in step **1222**. Next in step **1224**, the buyer adds to the template any special instructions that the buyer may want to give to the supplier as to how the item should be made or the marking superimposed thereon. The directions may also include the quantity of the items to be supplied. Finally in step **1226**, the user can add the particular item to its basket, whereby the item can order the item at this time or later.

[**0117**] In the foregoing specification, the invention has been described with reference to specific embodiments. However, one of ordinary skill in the art appreciates that various modifications and changes can be made without departing from the scope of the present invention as set forth in the claims below. Accordingly, the specification and figures are to be regarded in an illustrative rather than a restrictive sense, and all such modifications are intended to be included within the scope of the present invention.

[**0118**] Benefits, other advantages, objects, and solutions to problems have been described above with regard to specific embodiments. However, the benefits, advantages, solutions to problems, objects, and any element(s) that may cause any benefit, advantage, or solution to occur or become more pronounced are not to be construed as a critical, required, or essential feature or element of any or all the claims. As used herein, the terms "comprises,""comprising," or any other variation thereof, are intended to cover a non-exclusive inclusion, such that a process, method, article, or apparatus that comprises a list of elements does not include only those elements but may include other elements not expressly listed or inherent to such process, method, article, or apparatus.

We claim:

1. A method of managing the sale of a plurality of items from a plurality of corresponding suppliers to at least one buyer, the one buyer determines a description of the item to be purchased, said method of managing comprising the steps of:

a) enabling each of the plurality of suppliers to store at least one catalogue of its items in a database; and

b) responding to a search request of the one buyer to identify any item in the catalogues stored in the database with a description that matches the item description of the buyer.

2. The method of managing the sale of a plurality of items as claimed in claim 1, wherein there is further included the step of determining the identification of the supplier of the identified item.

3. The method of managing the sale of a plurality of items as claimed in claim 1, wherein there is further included the step of transmitting an order containing an identification of the item identified in step b) to be stored in a memory.

4. The method of managing the sale of a plurality of items as claimed in claim 3, wherein there is further included the step of transmitting a prompt to the supplier of the identified item that corresponds to the identified supplier.

5. The method of managing the sale of a plurality of items as claimed in claim 4, wherein the identified supplier is prompted to identify the order in the memory based upon the supplier identification borne by the order and to display the order to the identified supplier.

6. The method of managing the sale of a plurality of items as claimed in claim 5, wherein the identified item supplier transmits to and stores in the memory a response bearing an identification of the one buyer and a response to one buyer's order.

7. The method of managing the sale of a plurality of items as claimed in claim 6, wherein the response comprises an acceptance of the order or a counter offer modifying the terms of the one buyer's order.

8. The method of managing the sale of a plurality of items as claimed in claim 5, wherein there is included the step of identifying the supplier's response based on the identification of the one buyer and to draw from the memory the response for display to the one buyer.

9. The method of managing the sale of a plurality of items as claimed in claim 1, wherein the items contained in the one catalog comprise a promotional product.

10. A system for carrying out a transaction involving at least one item supplied by at least one supplier and potentially purchased by at least one buyer, each of the one supplier and the one buyer having a terminal connected to a network, said system comprising:

a) at least one interface including a database; and

b) at least one server that is connected to the network and is programmed to provide a buyer web site to permit the one buyer to communicate over the network between the buyer's terminal and the interface, and to provide a supplier Webster to permit the supplier to communicate over the network between the supplier's terminal and the interface, whereby one of the buyer and supplier may transmit a message related to the one item from its terminal to the interface and further transmit the message from the interface to the terminal of the other of the buyer and supplier.

11. The system for carrying out a transaction as claimed in claim 10, wherein said server is programmed to search and identify an item that meets the one buyer's description, and to transmit an order from the buyer to be stored on the database, the order comprising an identification of the one buyer, a description of the one item and an identification of the one supplier.

12. The system for carrying out a transaction as claimed in claim 11, wherein said server is programmed to construct a response to a buyer's order comprising the identification of the buyer, a response by the one buyer and an identification of the one supplier, and to transmit the response from the one supplier to be stored on said database.

13. A method of constructing a searchable database that stores at least one catalogue of items that may be bought by at least one buyer and are supplied by at least one supplier, the database being coupled to a server that is programmed to communicate over a network with a terminal of the buyer and a terminal of the supplier, said method comprising the steps of:

a) the one supplier selecting which of its items that are to be included in its catalogue;

b) the supplier attaching to each selected item a description of that item; and

c) then storing each item and attached description in a database, whereby the buyer may search the catalog of items stored in the database based on the descriptions of the items.

14. The method of constructing a searchable database as claimed in claim 13, wherein there is further included the step of the supplier further attaching to each selected item an identification of the supplier of each of the selected items.

15. The method of constructing a searchable database as claimed in claim 13, wherein there is further included the step of the supplier further attaching to each selected item an identification of the one buyer.

16. A method of managing a system to carry out transactions involving the purchase by each of a plurality of buyers of selected of a plurality of items, selected of the plurality of items being supplied by corresponding ones of a plurality of suppliers, each of the plurality of buyers and each of said plurality of suppliers having a terminal and being assigned a unique ID, each of the buyer terminals and the supplier terminals being connected to a network, the system being connected to the network, the system comprising a server and a database, said managing method comprising the steps of:

a) initially obtaining from each of the plurality of buyers and suppliers their unique ID to be stored in the database;

b) subsequently receiving and comparing the ID of each of the plurality of buyers who seeks access to the system and, if there is a match, granting to that buyer or supplier access to the system; and

c) effecting a plurality of transactions, each transaction involving the potential purchase by the buyer of at least one of item supplied by one supplier.

17. The method of managing a system to carry out purchase transactions as claimed in claim 16, wherein there is further included the step of creating a record of each of the plurality of transactions and attaching to each of the records the ID of each of the buyer and supplier involved in the transaction.

18. The method of managing a system to carry out purchase transactions as claimed in claim 17, wherein there is further include the step of storing each of the records in the database.

19. The method of managing a system to carry out purchase transactions as claimed in claim 18, wherein there is further included the step of granting to at least one of the plurality of buyers or one of the plurality of suppliers access to a particular record if the buyer or the supplier has an ID that matches the one ID that is attached to the particular record.

20. A method of managing the selecting and purchasing at least one item by a buyer, said managing method comprising the steps of:

a) associating with each of the plurality of distinct items a definition which defines the variables of its item; and

b) constructing a screen displaying the variables of the selected item in accordance with the definition of the selected item.

21. The method of managing the selecting and purchasing at least one item as claimed in claim 20, wherein there is further include the step of displaying the screen to the one buyer to prompt the one buyer to set the values of the variables.

22. The method of managing the selecting and purchasing at least one item as claimed in claim 20, wherein there is a library of markings and there is further included the step of facilitating the buyer to select one of the markings of the library.

23. The method of managing the selecting and purchasing at least one item as claimed in claim 21, wherein there is further included the step of constructing an order comprising the identification of the item, an image of the selected marking and an identification of the supplier.

24. The method of managing the selecting and purchasing of at least one item as claimed in claim 20, wherein the item is a promotional product and the marking is a logo.

25. A method of constructing a unique screen that displays a price matrix for at least one particular item, the item includes a definition of the variables associated with the item, said method of constructing comprising the steps of:

a) reiteratively changing each of the plurality of variables;

b) for each reiteration of each of the variables, attaching a corresponding price matrix dependent on the values of each of the plurality of variables for that reiteration;

c) storing in a database for each reiteration the values for each of the corresponding variables and the corresponding price matrix; and

d) constructing a screen for a set of variables of particular values by accessing the database to determine the price matrix corresponding to the set of variable of the particular values, and by composing the screen to include the set of values for the variables and the corresponding price matrix.

26. A database structure to facilitate communications over a network between any of a plurality of suppliers of items and any of a plurality of buyers of the items, said database structure comprising:

a) a buyers' memory structure comprising a plurality of sections, one section for each buyer for storing an ID unique to its buyer and the orders initiated by that buyer; and

b) a supplier memory structure comprising a plurality of sections, one for each supplier for storing an ID unique to that supplier and at least one catalog of the items of each supplier.

27. The database structure to facilitate communications over a network as claimed in claim 26, wherein the database is adapted for use with a server, the communications relate to the purchase of the item supplied by the suppliers and offered for sale to the buyers, each of the suppliers and buyers having a terminal, and each of the suppliers having at least one catalog of its items.

28. The database structure to facilitate communications as claimed in claim 26, wherein said supplier section stores a definition of each item supplied by the corresponding supplier.

29. The database structure to facilitate communications as claimed in claim 28, wherein said supplier section stores an image for selected items supplied by corresponding suppliers.

30. The database structure to facilitate communications as claimed in claim 29, wherein said supplier section stores a plurality of sets of values of item variables as determined by the corresponding buyer of that item.

31. A method of controlling communications over a network between at least one supplier of at least one item and at least one buyer to whom that one item is offered for sale, said method comprising the steps of:

a) receiving and storing a message in a memory from the buyer that relates to the item and includes an identification of the supplier that supplies the item; and

b) searching the memory for all messages with an identification that matches that of the supplier of the item.

32. The method of controlling communications as claimed in claim 31, wherein said method controls the operation of at least one server to communicate over the network, each of the one suppler and the one buyer having a terminal, and the server being associated with the memory.

33. The method of controlling communications as claimed in claim 32, wherein there is further included the step of programming the one server to construct a supplier site to communicate over the network to the supplier terminal and to construct a buyer cite to communicate over the net work to the buyer terminal.

34. The method of operating at least one server as claimed in claim 32, wherein the server is further programmed to respond to the storing of the first message in the memory to send a second message to the terminal of the supplier identified in the first message to prompt the identified supplier to search the memory for the first message.

35. The method of operating at least one servers as claimed in claim 34, wherein there is further included the step of permissioning only the supplier of the one item to search the memory and to access the first message.

36. A method of operating a searchable database to facilitate at least one buyer to select a certain one of a plurality of items that matches a description of the item sought by the one buyer, the plurality of items being variously supplied by a plurality of suppliers, each supplier supplying a set of its items, said operating method comprising the steps of:

a) storing a plurality of files in the searchable database, each of the plurality of files comprising an identification of at least one item, a description of the one item and an identification of the particular supplier that supplied the one item, and

b) facilitating each of the plurality of buyers to search the plurality of files stored in the searchable database for an item whose description matches the description of the one buyer and to withdraw from the database any file with an item that matches the buyer's description.

37. The method of operating a searchable data base as claimed in claim 36, wherein each of the buyers constructs an order comprising the withdrawn file, an identification of

the corresponding buyer, an identification of the corresponding item and an identification of the corresponding supplier of the item.

38. The method of operating a searchable database as claimed in claim 36, wherein there is included a library of markings, and there is further included the step of selecting at least one marking from the library and include an identification of that marking with the order.

39. A method of constructing a searchable database to facilitate each of a plurality of buyers to select certain ones of a plurality of items that matches an item description of each buyer, the plurality of items being variously supplied by a plurality of suppliers, each supplier supplying a set of its items, said constructing method comprising the steps of:

a) constructing for each of the plurality of items an identification of the one item, a description of the one item to be matched with the item description of one of the plurality of buyers, and an indication of the particular supplier that supplied the one item;

b) repeating step a) for each item of the set for each supplier; and

c) storing the files for a particular supplier in a distinct section of the database.

40. The method of constructing a searchable database as claimed in claim 39, wherein in step a) the file is constructed to include an identification of the one item.

41. The method of constructing a searchable database as claimed in claim 40, wherein in step a) the file is constructed to include a description of the one item to be matched with the item description of one of the plurality of buyers.

42. The method of constructing a searchable database as claimed in claim 39, wherein in step a) the file is constructed to include a definition of the variables of the item.

43. The method of constructing a searchable database as claimed in claim 42, wherein there is further included the step of constructing a screen displaying the variables of the selected item in accordance with the definition of the selected item.

44. A method of controlling the communications over a network between at least one supplier of at least one item and at least one buyer to whom that one item is offered for sale, said method comprising the steps of:

a) receiving a first message from the buyer that relates to the one item and includes an identification of the supplier that supplies the one item;

b) storing the first message in a memory; and

c) responding to the storing of the first message in the memory to send a second message to the supplier identified by the supplier identification to indicate that the first message has been stored in the memory.

45. The method of controlling communications as claimed in claim 44, wherein there is included a step of searching the memory for the first message using an identification that matches that of the supplier of the item whereby the one supplier gains access to the first message.

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